INDIA RUBBER WORLD

CAOUTCHOUC GUTTA-PERCHA

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OUR TWENTY-SECOND YEAR.

WITH its issue for last month THE INDIA RUBBER WORLD completed twenty-one years of regular and continuous publication under one management. Such a record, though not in itself evidence of particular merit, is so unusual in the history of publishing, in these days of change, that the management feel justified in some measure of self congratulation. By the way, in acknowledging the felicitations of many friends, THE INDIA RUBBER WORLD is disposed to congratulate every live rubber man upon being connected with the trade at this time of its most substantial progress.

The growth of the rubber trade in the period under review is not easily measured, though obvious to every intelligent observer. The increase in the number of rubber factories—to say nothing of the increase of the size of the old ones—alone is proof of the immense growth of this interest in America. It may be mentioned here the United States census for 1890 reported the value of rubber goods products at $42,853,817, while by 1905 the census returns had increased the valuation of the output of this industry to $148,015,391. The figure must since have become immensely larger, in view of the growth of the tire trade, to mention no other branch.

But to our mind a more satisfactory basis for comparison is the quantity of net imports of crude rubber and allied materials into the United States in the fiscal year 1888-89 (in which THE INDIA RUBBER WORLD was started), and in the year 1909-10, as shown in this little table:

		1888-89.	1909-10.
India-rubber	*pounds*	31,934,285	94,551,734
Gutta-percha			710,364
Balata			327,450
Gutta-jelutong			52,390,305
Scrap rubber			31,159,666
Total		31,934,285	179,139,519

These figures relate to the United States alone. Meanwhile the consumption of rubber has been introduced into several other countries, while it has been increased vastly in the older manufacturing countries in Europe. The fact that Pará exported 38,244 tons of rubber during the last crop year, against only 15,887 tons twenty-one years ago, is eloquent evidence of the constant growth of the world's rubber interest.

The new branches of the rubber industry developed since the establishment of this journal have been recorded too fully in its pages to require detailed treatment here. It is necessary only to refer to the birth of the gigantic tire industry, the great growth in the use of rubber insulation work, and the fact that in no other branch of the trade has there been a decline in the use of rubber.

During the period covered by the life of this paper important changes have occurred in business methods in connection with the rubber industry, as well as in nearly every other branch of commercial and industrial activity. This has been exemplified, in more than one instance, by the bringing of a number of plants under a single control, through the formation of a new corporation for the purpose. Any prejudice which at first may have been expressed against this new development appears to have been forgotten; at any rate, while the "combinations" appear, without exception, to have been successful, "independent" companies, on a comparatively small scale, continue to be formed and to grow into large concerns. Evidently there is room for all who desire to enter the rubber industry and who have the capacity for it—the right kind of brains and some capital.

It will hardly be denied that one effect of the working on a larger scale of the various branches of the rubber interest has been to give greater stability to qualities and prices of manufactured products and to the prices of raw materials, and such benefit is reflected in the business of the smallest as well as the largest houses in the trade.

It may not be generally recognized, though we believe it none the less to be true, that the most marked development in connection with india-rubber during the past two decades has been (1) in the introduction of planting on a practical scale, and (2) in the exploitation of forest rubber more economically. Thus is assured for the future more stable supplies of the raw material, and less frequent disturbances in market quotations. The tendency toward improved conditions in these regards may be illustrated by reference to the rubber exhibitions and congresses held within a few years past in Ceylon, at Djember, (Java), in London, and at Manáos. The fact that the

International Rubber Exhibition in project for London next year promises to be supported so liberally is in itself good cause for satisfaction to the trade.

We extend to all rubber men renewed assurances of our distinguished consideration, and again congratulate them upon being in the game *to-day*, as compared with the "good old times" only twenty-one years back.

WHAT WILL THE TIRE HARVEST BE?

THE topic of chief interest in the rubber trade just now is the future of the tire business. True, the price of crude rubber is a matter of unceasing interest, but when people really want rubber goods the price is of secondary importance; when they don't want rubber goods, no price is low enough to tempt them.

The tire manufacturers are considering whether next season's demand will equal that of the season last closed. Likewise this is a question for the makers of other rubber goods. A few months ago, when the tire men were falling over each other to buy rubber at constantly advancing prices, the effect was to put up the cost of the raw material for erasers and baby rattles and garden hose as well. If fewer tires should be needed next year, and assuming the supply of rubber to be maintained, there would be relief in every other branch of the rubber industry.

Nor is it in relation to rubber, only that concern is felt in the industry over the cost of raw materials as affected by the demand for tires. The production of fewer tires would lessen the pressure upon the cotton supply, to say nothing of the other supplies which the rubber industry calls for. Every rubber man, therefore—and dealers and consumers as well as manufacturers—has reason to be interested in the question whether as many or more tires will be wanted in 1911 than in the present year.

It is not the purpose of this article to answer the question here raised. It is the province of a newspaper to record proved facts rather than to indulge in prophecy, and nowhere is it less safe to prophesy than in the rubber trade. But there are a few considerations that occur to us as worthy of note in this connection.

Probably fewer automobiles will be made for next season than during the last. At a time when everybody able to buy a car appeared anxious to acquire one, the makers naturally sought to meet the demand. If the market has been overstocked just now, it is only temporarily. The automobile, as we have insisted for so many years, is "here to stay." Sometimes, in a real estate "boom," too many houses are built for immediate needs; but later every house is occupied, and the work of building goes on at an unprecedented rate. There will be more automobiles, rather than fewer, until better means of transportation displace them.

It is too early yet for the automobile builders to make up their minds as to how big a trade to plan for next season, but the figures are likely to be somewhat smaller. It is a case of waiting for the trade to catch up with itself. Certainly the trade cannot always grow, year by year, at the rate which we have seen recently.

Suppose only the same number of machines should be made this season as last. In view of the demand for replacements, the number of tires needed for 1911 would be enormously larger than in any previous year. Suppose the number of new cars should be reduced one-fourth or more, still as many tires will be required. What the rubber men may have done of late in stocking up tires too liberally nobody knows; but the actual demand for tires next year is not likely, under any conditions, to fall short of that for the present year.

We have dealt thus far only with automobile tires. The fact that the coming automobile show at Madison Square Garden, in New York, is to be followed by another show under the same management, also lasting a week, devoted to commercial motor vehicles, is eloquent testimony to the growing importance of the latter type of vehicles, and every one of these adds to the demand for rubber.

This month falls in the dull season in rubber tires—between the rush of last spring and what measure of trade another spring may reveal—but even so, the tire industry is only experiencing its beginnings, and it is a wise Providence that has ordained the cultivation of rubber in time to permit of a supply at one and the same time both for tires, and the thousand and one other articles for which the elastic gum is essential.

PROGRESS ON THE MADEIRA.

THE readers of THE INDIA RUBBER WORLD have been kept informed of indications of commercial progress of the Madeira river, which is destined to become an outlet to the world's richest natural rubber field—Bolivia. Not the least important of these indications is the regular publication, at the headquarters of the engineering corps at work on the Madeira-Mamoré railway, by some of the bright young American engineers temporarily exiled there of a newspaper—The Porto Velho *Marconigram*.

This remotely published little sheet is not as yet impressive in appearance, but it happens to be of the same size and general appearance as the earlier numbers of the *Sun*, which long has been one of the principal newspapers of New York. As indicating the up-to-dateness of the Madeira river newspaper, it may be mentioned that the latest issue received in New York mentions the new prices for automobile tires quoted by some of the leading American manufacturers.

But what is of very much more importance is the fact that a large part of the contents of the *Marconigram* is devoted to the work in progress for improvement in the sanitation of the Madeira valley. It is evident that definite results are being attained in this work, and this is one of the most promising facts in connection with the great enterprise now developing for opening the Bolivian rubber field to the world.

It is not unreasonable to suppose that ultimately the Madeira region will become as habitable as the now populous Mississippi valley in the United States, a region which Charles Dickens, in his "Martin Chuzzlewit," not longer than 65 years ago, felt called upon to warn the world against.

AN INCREASE OF MORE THAN 20 PER CENT. in one year in the value of United States rubber goods to the new non-contiguous territorial possessions of this country at first sight seems to indicate progress. It is possible, however, that the larger figure for the year last is due in part to higher prices of products than in former years. However this may be, it appears that the exports of belting, packing, and hose were smaller in value than last year, and the figures for boots and shoes were smaller than in 1908.

COMMENTING ON THE PRICES OF RUBBER GOODS in America, the Providence (Rhode Island), *Evening Tribune* says:

> As for the level of American prices, broadly considered, it is always artificial, of course, when compared with that of most other producing nations. What is the tariff for if not to raise prices?

Since "most other producing nations" adhere to the protective policy, it is not plain why the tariff in the United States should, apart from other considerations, "raise pdices" above those in Europe.

IT IS INTERESTING TO LEARN from many newspapers, published throughout the United States [for example, in the Wilmington, Delaware, *Evening Journal*, of September 17] that crude rubber is now at $3 a pound. There seems still to be people who insist that the price of crude rubber is increased by the import duty on rubber goods, and the able journalists who insist upon mixing their tariff views with all trade news may, before snow falls, get crude rubber up to $40 a pound, and put all the blame upon Congress.

THE ABLE LITTLE ROCK (ARKANSAS) *Gazette*, anent the recent frenzied discussion of a United States senator having an interest in a rubber company, expresses the opinion that senators should not be engaged in great business enterprises. Having "wrapped around themselves their senatorial togas," they should "pass their official lines in the serene seclusion of making laws," shut off from all touch and contact with money making. Their "senatorial togas" might keep them from freezing in winter, but how about food? The able *Gazette's* idea, followed to a logical conclusion, would prevent any but wealthy men from becoming senators—and a man already wealthy might have acquired at least part of his fortune from shares in a rubber company. How, then, is the country to be saved from the "rubber trust?"

SOMEBODY IS A PREVARICATOR, we learn from the esteemed Lowell (Massachusetts) *Sun*, for asserting that certain rubber companies formed before 1906 are "subsidiary companies" to a corporation created in that year. If the editor of the last edition of "Webster' had waited until seeing this in the Lowell newspaper he might not have defined a "subsidiary company" as—

> a company of the shares of stock in which another company has at least a majority, giving it control.

In this sense, we believe that most of the large industrial corporations to-day hold shares in companies of prior formation, whether these may properly be called "subsidiary" or not.

IT IS NO CREDIT TO ANY MAN, according the able Des Moines (Iowa) *Register and Leader*, to add to the consumption of crude rubber in the United States. By so much as one adds to the home market, "he reduces the market outside of the United States"—on the idea that, there being only so much rubber in the world, the more we take the less there will be for other countries. Does the Iowa newspaper think that true statesmanship would lie along the lines of discouraging the American rubber industry, in order to encourage that of Europe and Asia and Australia? But the truth is that the world's production of rubber has been increased enormously of late years, through the efforts of the governments, scientists and capitalists of many countries, but by American influences more than any other.

PROSPECTS OF OVERPRODUCTION.

THE principal editorial article in London *Electrical Review* for August 26, on the possibility of overproduction of rubber, is introduced as follows:

"The July number of THE INDIA RUBBER WORLD has a leading article on the above subject, and as a large number of the readers of the *Electrical Review* must be interested in this question, some as manufacturers and others as users of rubber goods, and again others as shareholders in rubber plantation companies, we propose to briefly indicate the views expressed by our contemporary, which, we believe, are the views held by well-informed people in the United States." [Here follows a summary of THE INDIA RUBBER WORLD'S article, after which the London paper comments]:

"When dealing with this subject on previous occasions, we have expressed the opinion that it will take some years for the production of rubber to so far overtake the demand as to bring about anything like over production, so that we are in general agreement with the conclusions of our contemporary; but our opinions were based on the anticipation that there would be hardly any appreciable increase in the output of wild rubber, as we considered that with lower prices it would no longer pay to collect many of the inferior qualities, or to collect from those regions which were so far from the ports of shipment as to make the cost of transport to the port a very heavy item. It is undoubtedly a very difficult matter to make any estimate of what the production of plantation rubber will be three or four years hence, but if it increases so rapidly as to lower the price to a figure comparable with the prices of 20 years ago, we believe that the demand will grow in proportion owing to the development of existing uses, and the introduction of new uses, for rubber which will follow the fall of prices of the raw material."

PROGRESS IN THE PHILIPPINES.

THE first annual edition of the Manila *Times*, designed especially for the interest of investors and settlers in the Philippine islands, is a very comprehensive review of the recent progress and present condition of the islands, and as such can hardly fail to interest one who is concerned at all about that part of the world, or the record made in colonization work by the United States. The general progress of Philippine commerce is indicated by the custom house figures at Manila, showing combined exports and imports ten years ago of $27,756,729, whereas for last year the total was $58,838,940.

The last part of the Philippines is brought under control by the United States authorities is what is now known as the Moro province. The work of pacification was long delayed here, and the province now has a greater number of troops in the Philippine islands. It is shown in this publication, however, that the native Moro rulers are loyal to the United States government, and that English is being introduced in the Moro schools. Improved methods of cultivation are being introduced, and there is an increase in trade. This province is the principal home of rubber in the Philippines, and some rubber has been planted. It is mentioned that 10,000 planted rubber trees on the Island of Jolo.

RUBBER FOUND IN MILKWEED.

TO THE EDITOR OF THE INDIA RUBBER WORLD: At the risk of being classed with the chasers of the "rabbit weed," the writer would direct attention anew to the common milkweed as a possible source of rubber.

Ten years ago I gathered a sufficient quantity of the latex to yield upon inspissation something over 2 grams of gum. No means of coagulation or curing were employed, the aqueous content being simply driven off by gentle heat. The pressure of other matters prevented an examination at that time and the investigation was discontinued.

An analysis recently made of a portion of this ten-year-old sample showed a quantity of vegetable matter, resins, chiefly a white, crystalline resin resembling albane, and 20 per cent. of hydrocarbon.

By the precipitation method I obtained 21 per cent. of hydrocarbon in character not unlike a combination of rubber and balata, with the qualities of rubber predominant.

This extracted gum has a specific gravity slightly higher than 1. It yields to the usual solvents of rubber, resists the same reagents, so far as tested, softens somewhat at a temperature which softens gutta-percha, has elasticity not possessed by the latter, and, most important, is susceptible of cure. A bit of the gum rolled into a slender thread and subjected to the acid cure is extensible to five times its length, and upon release returns sharply.

It is believed that the matter will repay attention. At least it offers to the student an interesting subject both for study and practice—opportunity to actually gather, coagulate and analyze a rubber-bearing latex. Special methods of treatment may be found to greatly improve results.

The plant flourishes throughout a great part of the United States, and at this season is already flaunting its fat, rubbery-looking leaves, waiting to be milked.

The proportion of hydrocarbon may be found to be larger than here reported, since oxidation to a considerable extent is not improbable in the sample tested, due to its age. Should results seem to warrant, the cultivation of the plant could offer no great difficulties.

There is an interesting possibility of profitable by products. The strong fiber of the stalk is capable of many uses, and the cotton of the seed pod might prove a substitute for ordinary cotton for some purposes.

The character of the plant is such as to make the extraction of the latex easy as compared, for instance, with guayule. "Burbanking" might develop an improved variety which would repay planting if the present did not.

Should THE INDIA RUBBER WORLD see in this matter sufficient of promise to warrant its lending encouragement it would be interesting to have investigators report results in its columns as the season progresses.

The writer is forwarding the remaining gram of the old sample of gum to Dr. Charles Knight, chairman of the committee of the American Chemical Society on standardizing rubber analysis, and head of the new school of rubber chemistry connected with Buchtel College, Akron.

A. T. SAUNDERS.

Chicopee, Massachusetts, September 7, 1910.

RUBBER INDUSTRY IN JAPAN.

THE number of rubber factories in Japan continues steadily to increase. It is true that many of these are yet small, but the same was true of the rubber factories of America and Europe at the beginning. A number of the Japanese concerns are devoted alone to the insulated wire industry, and few of them as yet make a diversified line of goods. THE INDIA RUBBER WORLD February 1, 1908 (page 147) contained what was at that time the most complete list of Japanese rubber factories that had yet been compiled, embracing 17 names. There is now in hand a list of what are classified by a competent Japanese authority as "rubber factories," embracing twenty-eight addresses, their output including practically every form of rubber goods. The location of these concerns is as follows: 8 in Tokio, 7 in Osaka, 6 in Tokiofu, 3 in Kobe, 2 in Osakafuka, 1 in Kyoto, and 1 in Yokohoma.

* * *

WITH two exceptions the names of the Japanese rubber companies are expressed in the vernacular, which sounds strangely to the English ear. The two companies referred to are branches of British corporations, being respectively the Dunlop Rubber Co. (Far East), Limited, at Kobe, and the Ingram Rubber Manufacturing Co., of Japan, Limited, also at Kobe. The growth in consumption of rubber in Japan is indicated by these statistics of imports from a consular report:

In 1906	*pounds* 606,728	In 1908	*pounds* 1,039,430
In 1907	693,125	In 1909	1,331,826

"PALO AMARILLO" RUBBER BOTTLED UP.

THE Mexican "Palo amarillo" (yellow tree) is still being "boomed" as a rubber producer, and more extravagantly than ever. The $20,000,000 Consolidated Palo Amarillo Rubber Co. has been mentioned already. [See THE INDIA RUBBER WORLD March 1, 1909—page 214]. Now are to be taken into account these additional companies, organized to "handle such subsidiary enterprises which could not be advantageously conducted by the Consolidated Palo Amarillo Rubber Co.:"

Palo Amarillo Mexican Crude Rubber Co., S. A. Incorporated in the City of Mexico, April 12, 1910, with a capital of $10,000. - - - General Manager: Mr. Guillermo H. Ellis, banker, broker, and capitalist; head of the banking firm of W. H. Ellis & Co., 29 Wall street, New York City.

Mexican Consolidated Palo Amarillo Rubber Co., S. A. Capital, $200,000. President: Mr. Guillermo H. Ellis.

In a lengthy report on "Palo amarillo" a Mexican newspaper states that "The general office of the Consolidated Palo Amarillo Rubber Co. is at No. 3 Broad street, New York." The name "Guillermo" evidently has been adopted by Mr. Ellis since his becoming interested in Mexico. In the New York Telephone Directory is the entry—

Ellis, W. H. .....3 Broad, 6828 Hanover

No occupation is given, though this is done in the case of most telephone patrons. The New York City Directory records—

Ellis, Wm. H., broker .....29 Wall R 103

The last figure indicates that the business of this capitalist is domiciled in room 103. Furthermore, the two addresses are only around the corner from each other, the intermediate corner entrance being utilized by the greatest banking firm in the city. The title Duke of Hawash, conferred upon the American capitalist by the Emperor Menelik does not appear to be used anywhere in booming "Palo amarillo."

A fact not generally known is that "the company owns the only process for the extraction of the rubber from the Palo amarillo tree, having secured that patented by James McConnell Saunders, an English expert, at present employed as chemical expert by the Mexican Government." It would appear, therefore, that Mr. Guillermo H. Ellis has the supply of this kind of rubber effectively bottled up, and that the impatient world will have to wait for it until he gives the word.

LATE racing news from England indicates that people who have to do, in an important way, with rubber planting have both the time and the money to figure prominently on the turf. The purchase is reported, by Mr. William Wellington Bailey, director of rubber companies in Ceylon and the Malay peninsula, of a horse named "Bachelor's Double," a recent winner of important racing events, at the reported price of 7,000 guineas [=$35,768.80].

Pará, Manáos and the Amazon.

By The Editor of "The India Rubber World."

SEVENTH LETTER.

The Rubber Fields Beyond Manáos.—Matto Grosso, Peru, the Acre, and Venezuela.—The Many Kinds of Rubber in Peru, Other than "Caucho."—Reminiscences of Manáos, and of Some Visitors There.—The Return Trip Down the Amazon, and Welcome at Pará.

SOME people at Manáos are still wrathful over an article published in the New York *Herald* back in February, 1907, entitled "Peter Panning in the Land of Poco Poco." It was an alleged interview with Casper Whitney, illustrated by reproductions of photographs, such as all tourists may purchase anywhere in Brazil. One of these was labeled "Indian of the Upper Amazon Never Before Seen by White Man." Another pictured Indians found only in the Argentine republic, some 2,000 miles from the region in which "Peter Pan" was "poco-pocoing." By keeping the canoe close in shore he fortunately slipped by without attracting the attention of these savages!

He went cautiously up the Amazon as far as the Rio Negro, where he found that "steamboat navigation ceases." Here he took to canoe, paddled past Manáos, with its waterfront crowded with buildings and its huge floating docks, passing through the fleets of ocean going steamers that crowd the river basin even to midstream, and saw only jungle covered shores and watery wastes never before trodden by the foot of white man. From danger to danger, from little jeopardy to great jeopardy, he advanced up to the Cassiquiare river.

His adventures were marvelous. He fought his way through schools of crocodiles that slew natives right and left; slept in trees while cannibals held orgies on the ground beneath, and at last—worn, ragged, half starved, but with unfaltering imagination—he came down the Orinoco, never before seen by white man, and was safe.

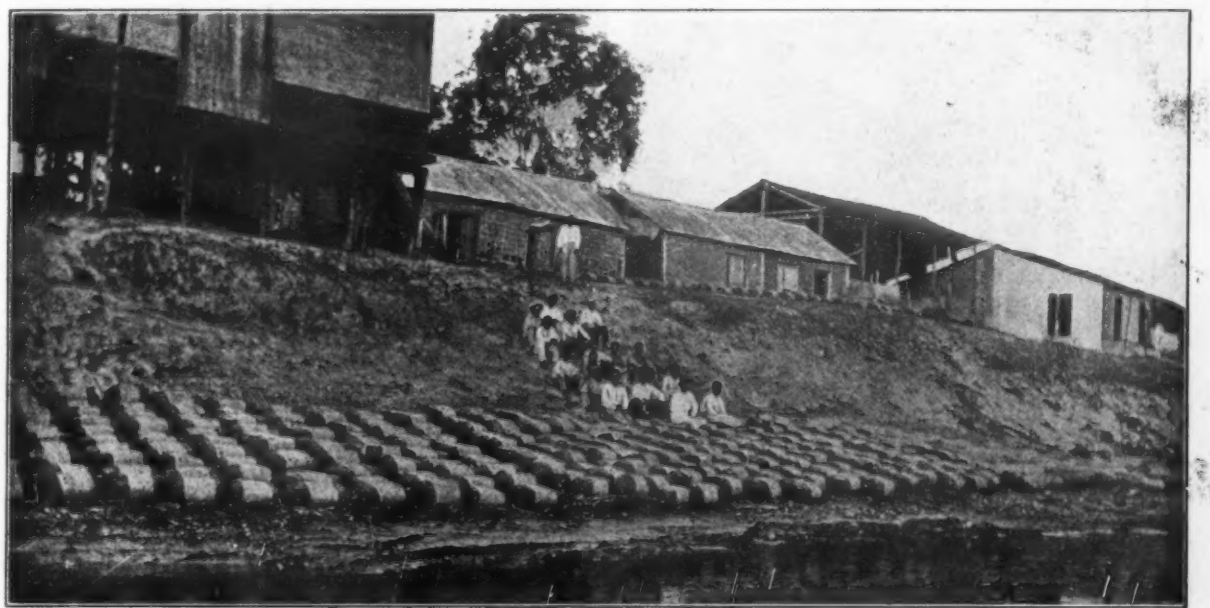
Peter need not go so far afield for material. A little "panning" nearer home would surely get color. Why not offer the *Herald* a story on "Jigging for Giraffes in Jersey City," and be back in the hall bedroom before dark?

RUBBER FIELDS OF MATTO GROSSO.

One really is obliged to go as far as Manáos to appreciate what immense rubber producing areas extend south, west, and north. Take, for example, the great Brazilian state of Matto Grosso. It produces considerable rubber, but has possibilities in the way of infinitely greater production, once its territory is explored. It is over a million square miles in area, reaching from Amazonas on the north to Paraguay on the south. The Guaporé river, which flows into the Amazon through the Madeira, is part of the boundary line between this state and Bolivia. The river just named is but one of a number of important streams, coming from the great forest reaches in which is much rubber. Of the others perhaps the Tapajós is the most important.

The state of Matto Grosso is very sparsely populated, 150,000 souls being a liberal estimate. No portion of the Brazils is perhaps better named than this, the words meaning **"Dense Forests"** —practically as dense, indeed, as at the time of its discovery 400 years ago. The forest lands are wonderfully rich in valuable woods, medicinal plants and barks, and all the sturdy pioneer needs to do is to go in and help himself.

It was as late as 1893 that rubber trees were discovered in Matto Grosso and the official report declared that there were "thousands of millions" of them. Undoubtedly Matto Grosso rubber came out through the Xingu, the Tapajós, and the Guaporé before the dates mentioned, but with no record of just where it came from. Where there is regular rubber gathering in this state, *estradas* are laid out, each gatherer attending to something like 100 trees. According to de Mello, latex cups are not attached to the tree itself, but little troughs made from



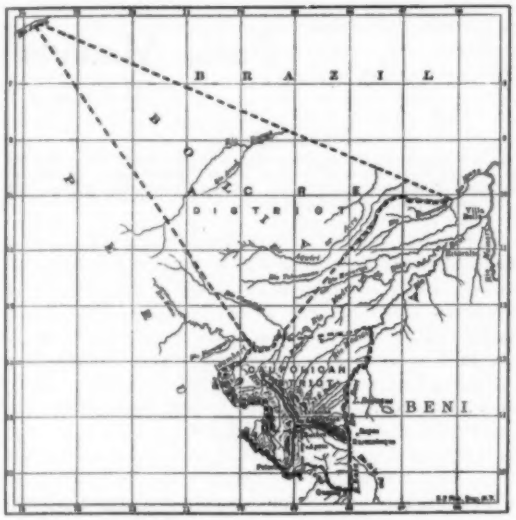
A SHIPMENT OF CAUCHO AT ITAITUBA.

[This class of rubber abounds in Brazil, often on the same lands with *Hevea*. Itaituba is at the head of navigation on the river Tapajos.—From **"Album do Estado do Pará."**]

the wood of the "bority" palm are fastened to the tree with pegs, the joint between tree and trough being filled with clay. He claims that the milk is coagulated by the addition of alum dissolved in hot water. The freshly coagulated latex is then pressed between boards to expel as much water as possible.

His description is not altogether clear in many respects, and it may be that he has confused the coagulation of the *Hevea* latex with the boiling of the "mangabeira" milk. It is, however, true that much of the Matto Grosso rubber is poorly handled, and is usually air cured instead of being smoked. That, however, will rectify itself when the territory is opened, as the smoked product brings a much better price. Matto Grosso "coarse" is to-day quite common; "fine" and "medium" are also on the market.

An immense region lying along the eastern range of the Andes mountains and extending to the Amazon belongs to Peru. It is known as the forest country, or *montana*, and is watered by a great network of rivers. These forests are not only rich in cinchona, vanilla, and cacao, but there is a great deal of india-rubber. There are three distinct kinds of rubber gathered in the Amazon provinces of Peru: (1) "caucho," which is the product of the *Castilloa Ulei;* (2) "seringa," *borracha* or "jebe fino," which comes from a *Hevea;* and (3) the "orco-jeringa" or "weak fine" *Hevea.* There are a number of theories regarding the reason for the shortness of fiber in the weak fine. The common belief is that, as it is found on high lands far above the sea level, it is due to locations where the *Hevea* is not at its best. It is possible, however, that it may be caused by the admixture of another latex with that of the *Hevea.*



MAP OF THE ACRE TERRITORY.
[The triangle shows what Brazil acquired from Bolivia.]

THE LAND OF "CAUCHO."

The tree producing caucho was for a long time unidentified, and little was known about it except that the rubber was gath-

MANGUE (RHIZOPHORA MANGLE) NEAR PARA.

VEGETATION ON THE RIO UCAYALI (PERU.)

Indian on the Upper Ucayali.

Forest Scene in Colombia.

ered by a system that involved the destruction of the tree. This method still obtains and is as follows:

Near the base of the tree a broad V shaped cut is made and the latex is caught in an earthen vessel, sometimes in a waterproof bag. After all the latex has been drained out of such incisions, the tree is cut down. Then circular incisions are made about the trunk, about two feet apart, and the latex is run through tubes of thick bamboo and caught in basins or *calabashes*. The milk is next passed through a sieve to remove bark and leaves, and then is ready for coagulation. Very often the rubber gatherers hew a trough in the soft wood of the fallen rubber tree in which to coagulate, while others dig a hole in the ground and pour the milk into it. If the natives have soap or the juice of the Peruvian vine called *leche camole*, the latex coagulates very rapidly, and the result is a square block known as caucho or Peruvian slab. This slab cut in slices forms what is known as caucho strip. The grade of rubber known as caucho ball is made up of the strings of rubber that coagulate in the incisions on the tree and are stripped off a couple of weeks after it has been cut down. For the sake of convenience in handling they are made into balls.

For a long time caucho came only from Peru, but it is now found to be distributed widely throughout the Amazon valley. The caucho gatherers in large parties disappear into the trackless forests and travel sometimes for hundreds of miles over territory never before explored, destroying trees wherever they find them.

It is claimed that the gatherers get from 15 to 25 pounds of dry caucho from one tree. It has often been suggested that the latex could be taken out much as the *Hevea* latex is. Native gatherers, however, claim that such cutting of the bark results in destruction of the tree by either disease or insects. It is also claimed that, when the tree is cut down, shoots spring up from the stump that in a short time become thrifty trees. It is said that every eight years a *cauchal*, which is where the caucho trees flourish, can be harvested.

The word caucho, really the Spanish for caoutchouc, has been the cause of a great deal of misunderstanding. Many writers speak of caoutchouc and of its destruction in Peru. Readers suppose they mean that *Hevea* trees are cut down as well as *Castilloas*, which is not the fact. Nearly all writers on Peru and Bolivia make this mistake, and even the official publications are not always clear.

River Scene Almost Anywhere on the Amazon.

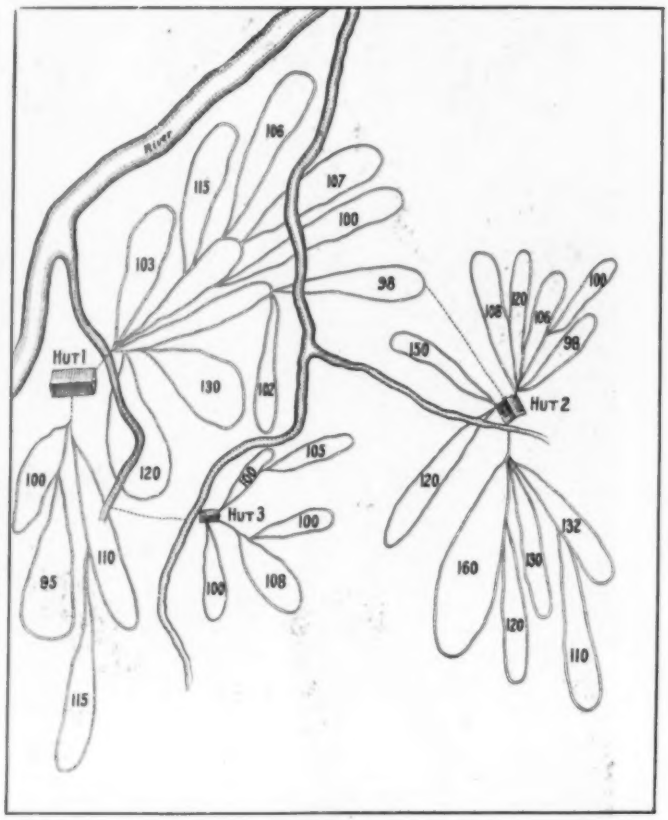
SHIPPING SCENE AT MOLLENDO, PERU.

The word *caoutchouc* means rubber of any and every kind. Indeed it is a synonym for india-rubber. *Caucho*, on the other hand, is a specific trade name of world wide acceptance for the product of the *Castilloa Ulei*.

RUBBER CONDITIONS IN PERU.

"Peruvian fine" Pará, as well as Peruvian "weak," is very plentiful in the Amazonian basin, and it usually comes out by way of Iquitos. After the Pará rubber became a real factor in Peru, laws were passed and concessions granted for rubber bearing lands. These laws are of two sorts. One form of contract is for the leasing of the lands containing rubber trees; the other for the renting of *estradas* of 150 trees each. For the first, the *concessionaire* pays a royalty of a trifle less than a cent a pound for the rubber extracted (2 soles per quintal) which is collected with the export duty. Under the second form, the government charges about 10 cents a year for each hectare [about 2½ acres] of land upon which the estate is situated.

STRAW BOATS ON LAKE TITICACA.



PLAN OF A "SERINGAL" IN PERU.

[Hut 1—With 15 *estradas*, employing 7 men. Hut 2—With 12 *estradas*, employing 6 men. Hut 3—With 5 *estradas*, employing 2 men.]

The laws are framed in the interest of the rubber gatherers, and the government has been very liberal in granting concessions. The Peruvian government allows these contracts to become effective only when the land is viewed by an expert surveyor and approved. It also demands a guarantee from the *concessionaire* in the way of the purchase of interest bearing bonds, which are held for the purchaser's account, the interest being paid to him. The government has been exceedingly generous with those taking up lands and has voted many valuable concessions to the companies that have constructed roads.

The great rubber city in eastern Peru is Iquitos, for a long time of not much commercial importance, and only a collection of palm-thatched houses occupied largely by Indians. By the rise of the caucho industry, however, it became the place where rubber gathering expeditions were outfitted, and where the rubber was brought for shipment down the Amazon. That great river, by the way, is called Marañon there, and is navigable some 300 or 400 miles beyond. In other words, there is a good navigable waterway from Manáos up the Amazon for about 1,600 miles. More and more steamers go to Iquitos and, eventually, it will be a city of great commercial importance. The Peruvian *montana*, which covers perhaps 100,000 square miles, is as rich as any part of the tropical world, and when its quarter of a million Indians, many of whom are excellent workers al-

RUBBER TAPPER'S HUT, FROM THE PURUS, UPPER AMAZON.
[London Rubber Exhibition, 1908.]

EXHIBIT OF THE STATE OF AMAZONAS, BRAZIL.
[London Rubber Exhibition, 1908.]

ready, awake to the dignity of labor, a greater wealth than that possessed by the Incas will be produced by them.

THE ACRE RUBBER FIELD.

Perhaps the most interesting of all rubber producing territories in South America is *O Acre*, or The Acre—not a state but a federal territory. It lies in the upper Amazon valley, close to Peru and Bolivia, and is watered by a labyrinth of rivers great and small. Of these rivers the Amazon, the Javary, the Ucayali, and the Madre de Dios, with others, either form boundaries for the territory or make the forests of easy access. It is probable that no other part of the world is richer in rubber than is The Acre. Most of the rivers are navigable, some of them for hundreds of miles, and the territory is easier to reach from Pará and Manáos than any other large Brazilian rubber producing territory. The country is healthful and the flood seasons brief. The climate is not as humid as in the lower Amazon valley, and the heat is not so unbearable as in the latter region.

In the upper valleys the rainy season begins in September and ends in December, while in the middle and lower valleys it is months longer, beginning in November and terminating in March. In the southern regions the rains begin in June and end in October. It will thus be seen that the Acre territory offers a much longer working season that the others. The fine grade of rubber known as "Purus" comes from The Acre.

The Amazon for more than 600 miles forms a boundary between Brazil and Colombia. There is a vast territory north of the river that is watered by the Putumayo, the Napo, the Caqueta and their tributaries, forming a wonderful system of waterways into a country rich in *Hevea* rubber, in caucho and balata. Very considerable quantities of rubber come to Manáos from this section.

This territory has been more or less worked for many years,

TYPICAL RUBBER BARRACKS ON THE RIVER JURUA, IN BRAZIL.

A RUBBER TREE CUT DOWN FOR ITS PRODUCT.

although the rubber has not been very extensively gathered, the early exploration having been for quinine. It appears on the map as being Colombian property, but it is well to add that it is claimed by Peru. Indeed, Peruvian custom houses were established and taxes collected on all exports. The governments of Colombia and Peru, however, put in force a *modus vivendi*, giving both countries equal rights on the Putumayo until the boundaries settled by arbitration.

Most of the rubber exploitation in the Brazils has been south of the Amazon. That there are a great variety of rubber producing trees north of the Amazon is undoubted. There are many sections where the *Hevea Brasiliensis* does not seem to be present. The *Guyanensis*, however, is very widely distributed, and produces a rubber that is well worth gathering, although it is probable that it needs different treatment in coagulation, from the *Brasiliensis*.

The southwestern states of Venezuela, notably Amazonas, drained by the Rio Negro, are said to be very rich in rubber trees. A certain amount of rubber known as "Angostura," fine and course, comes down to Manáos and once the territory, particularly to the east of Bolivar, is explored, both rubber and balata undoubtedly will be found in abundance.

The upper Rio Negro, it will be remembered, is joined to the upper Orinoco by a river known as the Casiquiare, so that there is a waterway from Manáos to the upper Orinoco.

It is said that gatherers up the Rio Negro are much more careless than they are south of the Amazon. A rubber exporter in Manáos, describing their method of tapping, said that the gatherer first made a trough around the body of the tree, using the pith of the "miritic" palm. Above this he made incisions, and as the latex ran down into the trough, it drained off into a little earthen pot set on the ground. Hardwood smoke was used in curing instead of palm nuts.

REMINISCENCES OF MANAOS.

A city so far removed from New York as Manáos is an ideal reflector of the sort of permanent impression a foreign visitor leaves behind him. It is usually some particular idiosyncrasy, mannerism, or fad that is held in remembrance. Thus, for example. Manáos remembered a speculative rubber promoter as possessing a very broad, tooth-showing smile; a millionaire yachtsman and Wall Street magnate as a good-natured prince of perspiration; a New York city official, once in rubber, as dictating to three stenographers at once (why didn't he hire one good one?), and so on.

Perhaps the one whom they remembered best, and with surprised awe, was a certain boyish American, who appeared on the *avenida*, coatless, vestless—the only man in Manáos without belt or sash, his trousers held up by good old-fashioned "galluses." This youngster crossed the Andes, bought rubber, came down the Madeira and got it through to New York at a profit. Not only that, but he engaged to build a Madeira-Mamoré railway. Others got concessions, to be sure, and he did not, but it was not owing to his lack of ambition.

When the time came for our departure from Manáos, the steamboat company allowed us to go down on a cargo boat. At first the officials strongly advised our waiting a week for one of the regular passenger boats, picturing the discomforts of a vessel not fitted for passengers, but finally capitulated.

One very interesting formality that we were obliged to go through before leaving Manáos was the payment of a head tax amounting to $9 for permission to leave the country. I tried to get the official to make it $8.98, but got not the slightest encouragement. I was further obliged to deposit with the steamship company $50, to be turned over to the hospital board in

INTERIOR OF AN "IGAIPO."
[In the Purus river valley.]

Examining Rubber in an Amazon Warehouse.

Gathering Turtle Eggs on the Amazon.

Barbados for care or funeral expenses in case I arrived at that careful island with yellow fever.

DOWN THE AMAZON.

Early on Sunday morning, therefore, we said our good byes and made our way down to the pier, where a delegation from the Commercial Association was waiting to bid us *bon voyage*. We all shook hands and said nice things to each other; the president gave me a beautiful spray of orchids, the *Catalaya superba*, and with a final adieu we went aboard. Shortly after, the boat started down river. Our last glimpse of Manáos as we steamed away was the huge dome of the theater, its rich blending of red, blue, yellow, and green tiling blazing in the sunlight like a gigantic fire opal. We passed by the red clay shores, and at length out of the black water of the Rio Negro into the yellow Amazon again.

The captain was a veteran in the Amazon trade, and knew Manáos thirty years before, when it was only a farmyard. He gave me his cabin and laid himself out to make me comfortable. The boat was a slow one, but with the current we had no trouble in doing 13 knots, and passed Itacoatiara early in the evening. The river had risen 10 feet since we came up, and by the water-marks on the trees had still another 10 to go. The floating logs, trees, and grass patches had multiplied greatly.

The food was excellent, the drinking water was good, and, swinging our hammocks high up on the rear deck, we were very comfortable. The big flat bottomed freighter was as steady as a rock, and slid through the water as if she was greased.

I was up at 6 the next morning and found it raining heavily. All the forenoon we passed through exceedingly heavy showers. The rain drove under the awning more or less, so I put on a rubber coat and wondered if friends at home would believe how cool it was at midday directly on the equator.

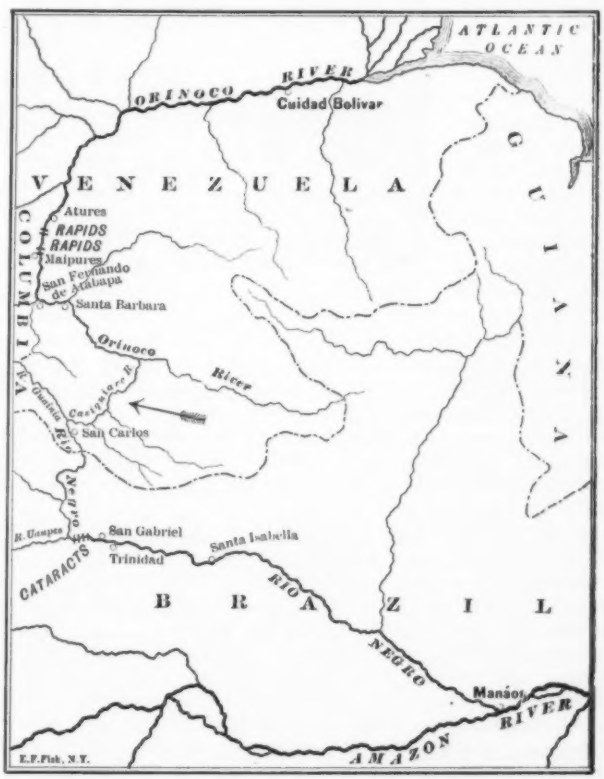
We passed Santarem that afternoon, and got a good view of the sandy beach in front of the town, its big white church, and its little one-story houses with blue fronts and red roofs. We also saw the Wireless station—the "deaf and dumb wireless" as the captain graphically described it. The Tapajós river enters the Amazon opposite Santarem, and as it is not as muddy as the latter, it shows the same line of black water as does the Rio Negro, although in lesser degree.

WICKHAM AND SANTAREM.

It is a good thing to remember that Santarem is the place where Wickham, back in 1871 or '72 or '73 was installing a small rubber plantation and watching for Opportunty. Luckily for the planters in the Far East it came, when the big British steamer *Amazonas*, without cargo and without supplies to buy one, hove in sight. Wickham, practically penniless, chartered it for the Indian government, stored baskets of *Hevea* seeds in its huge hold, won hasty clearance from Pará for "rare botanic specimens," and got the seeds to the Kew Gardens alive and vital. Every *Hevea* tree in the Far East and thousands in other parts of the world are a direct result of that act.

The British planters should erect a splendid monument at Santarem in honor of Wickham, but they will never do it—with the consent of the Brazilians.

One night a boat of our own line saluted us in passing, showing a flare which burned green for three minutes, then shot up three white balls, lighting up the yellow waters and the black



The Casiquiare River and its Outlet.

jungle most weirdly. When we reached the place where the German boat had grounded, although it was broad daylight, it rained so heavily that one could not see a boat's length ahead. The pilot knew where we were, but he also knew what the river could do in the way of making new channels and obliterating old ones, so we anchored until it cleared.

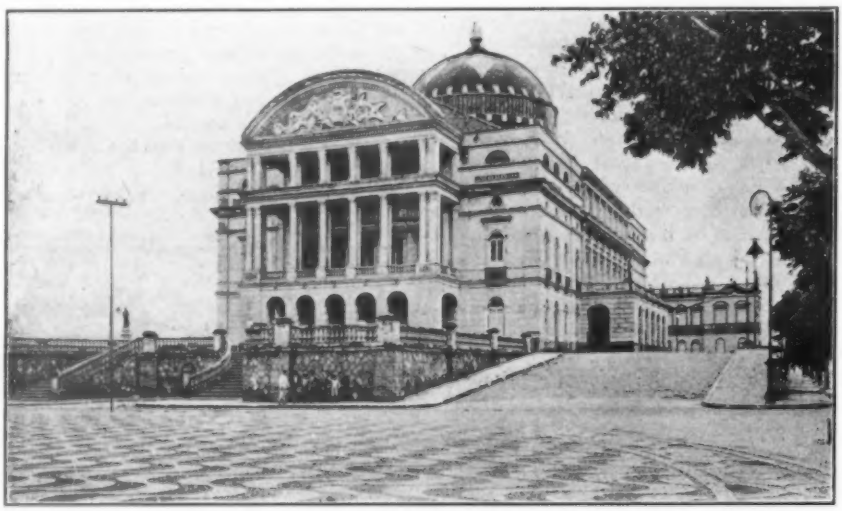
The next morning at 6 o'clock we were about twenty miles from the beginning of the "narrows." About 8 o'clock we were off Garupa, where there is quite a settlement. Here the current was not as strong, the shore began to be fringed with palms, and it grew much warmer. We began to see rubber trees, huts on stilts, and banks awash at the river's edge.

We thought we had been through heavy rains. But the shower than came driving up through the narrows so far outclassed any former experience that we decided we hadn't really known what rain was. It passed after time, however, and we went on. The captain and I had tea and toast, standing up to take it, for there was no dry place to sit, even on that awning shaded deck. At 4.30 we passed through Furo Grande, casting the lead every few feet, as many boats go aground here. We got through without mishap, however, and turned in at 8.30 that night, with the assurance that we would be in Pará at dawn.

AGAIN AT PARA.

The morning of our arrival at Pará we were up at 5.30, sighting the islands of the city an hour later. By 9 o'clock we had breakfast, successfully passed the doctor and the customs, and, entering the launch which friends had sent out, went ashore.

To my surprise and pleasure I found that the rubber importers and merchants had arranged that I should be their guest while I stayed in the city, as well as at a banquet to be given that night at Café La Paz.



THEATRO AMAZONAS (THE STATE THEATER) AT MANAOS, ON THE UPPER AMAZON.

The story of that banquet, speeches, music, menu, and all, has already been told in the pages of The India Rubber World by our regular correspondent, and I am not going to inflict upon the reader a repetition of the perfect details. I hold myself guiltless, however, for having a mental reservation as to verbal description of this function, wherever and whenever it may seem fitting. For I am proud and delighted every time I think of it.

After the banquet I spent the night at the home of a Brazilian friend; then, the next morning, starting early, went to the steamship office, where a score of friends had gathered to say good bye. A little later, boarding a launch, I returned to my steamer and we were soon *en route* for Barbados.

It was then that I met the Peruvian physician, of whom I have spoken, who was very ill of *beriberi* and was seeking the salt water, which is said to be a sure cure. He scouted the generally accepted theory that the disease comes from eating polished rice, declaring that no one as yet had any idea of its cause.

In case any reader needs the services of this very skillful physician in Iquitos, his charges are 3 arrobas* of rubber for an ordinary prescription and 25 arrobas for an operation, 10 per cent. to be added for shrinkage of the rubber.

The Peruvian doctor, by the way, told me of a young American in Pará, who bought a motor car called the "Reo." He was proud of it and proud of the name Reo that appeared in gilt letters on the radiator. He also speeded the machine very rapidly. The courtly Brazilians named him The Reo, some in all honesty and others with a smile af appreciation. He was much flattered until, one day, in brushing up his Portuguese, he discovered that the word meant Criminal.

As we passed down the Tocantins the captain pointed out a dozen places with broad sandy beaches and fairly high land, that were constantly cooled by the trade winds, where in his judgment Pará should have been located.

By 4 that afternoon only one shore was in sight. The water was turning from a muddy yellow to a tawny green and the ocean swell began to be felt. We left the mouth of the river just at sunset and two hours later were fascinated by the wonderful spectacle of a tropical phosphorescent sea. As the boat plowed through the water, broad streamers of star sparkles undulated on each side and trailed for hundreds of yards astern. Every breaking wave to the far horizon was an island of white fire. So bright were these myriad lights that we had difficulty in recognizing Salinas light, and were only sure of it by its yellow color.

Soon we picked up the pilot boat and watched with interest the half hour struggle of the man in her little tender to get alongside and take off our pilot. Finally, by making a low jump, he landed sprawling in the boat; then we turned in and slept soundly.

AND THEN ON THE ATLANTIC.

The next day we found the great current that sweeps northward up the coast of South America and which all navigators seek in going north but avoid in going south. The day was clear and bright, with a strong breeze on our quarter. The big freighter, almost flat-bottomed, with no bilge keels, wallowed and rolled incessantly but pushed steadily forward.

Fresh from the smooth waters of the Amazon and somewhat enervated by the heat, captain, officers, crew and passengers were all qualmish and sometimes frankly sick. Salines and fruit salts were abundantly in evidence. In 24 hours, however, all had recovered and were very proud that our ancient ark has made 237 miles. The next day it was 281, and the day following exactly the same. Directly after that we were being interviewed by a brisk young physician in the roadstead off Bridgeton, Barbados; were given a clean bill of health, not even being put under observation, and our $50 deposit given back to us. Then we got in the "Lilywhite," were rowed ashore, and the tropical part of the (Brazilian) journey was finished.

* One arroba = about 32½ pounds in Brazil.

[THE END.]

The India-Rubber Trade in Great Britain.

By Our Regular Correspondent.

IT goes without saying that the fall in price of raw rubber during July and August proved very welcome to the trade whatever may have been the case with investors and company promoters. Although in some cases reductions in the price of goods have been made, this is by no means general.

STATE OF TRADE.

There is plenty of rubber yet to arrive at the factories bought at 2 or 3 shillings a pound more than the price of today. A fact which buyers of rubber goods do not always recognize is that rubber manufacturers do not carry their business from hand to mouth, but are bound to buy far forward delivery, to a great extent at any rate. Another point is that when prices are raised by the manufacturers this rarely occurs until profits have been considerably curtailed, so it is only reasonable that a corresponding time should elapse before notices of reduction in price are sent out to customers. Of course the price of rubber is still high enough to curtail consumption and there is little doubt that a further drop of a shilling or two would result in a considerably increased demand for goods.

It is not only the man who wants a new macintosh who has decided to wait for a fall in price; such large and important customers as the government department have sent out their orders as sparingly as possible. Considering all the circumstances it is somewhat surprising that the reports of such manufacturing companies as publish their accounts have been so satisfactory. In referring to this in conversation recently with the general manager of an important factory, he said it was true that they had maintained their dividend, but that this had only been possible by the most strenuous application to business. He personally had had the hardest time of his thirty years' experience, nearly every order having to be carefully gone into and calculated and re-calculated times without number.

To touch on another matter, though of course one cannot say what will happen to the raw rubber market next year, those firms who have contracted to purchase plantation fine at 12 shillings per pound for 1911 delivery, must feel in rather an awkward position. On the contrary, it is not surprising that the plantation companies whose output has been sold a year ahead at 12 shillings are congratulating themselves all the more since the fall in value below the Brazilian product.

THE prelimininary announcements in the press concerning one of the latest synthetic rubber are of the familiar type. There is

ARTIFICIAL RUBBER AGAIN.

the usual chemist who has suddenly discovered how to make the real thing, years of trials and disappointments, and the usual company with a large capital is shortly to be formed to exploit the invention. It was announced in June that a company was to be formed in Liverpool with a capital of £250,000 to put this latest synthetic rubber on the market, the producing price being a fraction over one shilling per pound. I don't say that there is nothing in it; that may be the usual feature, for all I know. Though I have not yet seen a sample, I hear that it is being closely examined by chemists in rubber factories, and that chairmen of rubber planting companies are making anxious enquiries about it.

I FOUND time the other day when in North Wales to look in at the Meadow Mills, Holywell, where Mr. Eyre has for some

RUBBER WASHING.

years carried on the business of washing low grade rubber for the trade. Mr. Eyre's experience in this business goes back about thirty years, he having been established in Liverpool many years before the removal to the present more commodious premises was effected. Considerable additions have been made to the plant in the last year, and the output of washed rubber has been largely increased. Mr. Eyre is quite an enthusiast on the subject of rubber washing, and the plant in use at his works has been specially designed by him to effect complete cleansing of the rubber without causing ony deterioration. Holywell, I may say, has long had a great reputation for the healing powers of the holy well, to which pilgrimages are made by the afflicted. To a large extent the water supply of the Meadow Mills is derived from the same spring, though whether it has any particular beneficial effect upon refractory low grade rubber I am unable to say.

THE Rubber Refining Syndicate, Limited, with a capital of £10,000, has been formed with the object of purifying and cleans-

SOME NEW REGISTRATIONS.

ing rubber for the trade. The expression "washing" does not occur in its objects, and probably this has been purposely left out, so that no confusion can arise with a large company already referred to in these notes as having been formed for what is really the same purpose.

Another company of interest is the Hazel Grove Rubber Co., Limited, with a capital of £50,000, to carry on the business of manufacturers of and dealers in rubber goods, etc., and to adopt an agreement with T. Gare and the Gare Patent Tyre and Wheel Co., Limited. The registered office is at 5, Castle street, Liverpool, and presently the business will be carried on at Hazel Grove, which is a mile or two from Stockport. This is where the Gare reforming patents have been worked for the last three years on a modest scale. I am not in possession of the terms of the agreement referred to, but I may remark that the Gare reforming patent is in the possession of the Simplex Rubber Co., of Willerden, of which company Mr. Parker Smith is the chairman.

The Premier Reforming Co. is forming a subsidiary company with a capital of £150,000, to work the six northern counties. I don't quite know why counties should be worked in this manner, unless the main idea is to save distancee in sending scrap rubber to be reformed. In the counties referred to rubber manufacturing is only carried on in Lancashire, the Yorkshire business being on a very small scale outside the card clothing branch. The Premier company is certainly losing no time in getting itself established, though I have heard prominent men in the rubber trade suggest that the new flotation might as well have been deferred until the parent company had paid a dividend.

The Greenwich Rubber Recovery Co., Limited, with a capital of £3,000, has been formed to acquire the premises and effects of the Surrey Tyre Co., at Pelton road, East Greenwich. I may say that the Surrey company has long ceased to do any business, and the premises have for six or seven years been occupied by Mr. R. R. Gubbins, for working his patents in connection with scrap rubber, and more particularly with removing wire from armored and embedded hose, like a good many other patents, Mrs. Gubbins—who is a young man, was an officer in the army—allowed himself to be engrossed more by details of mechanism and the possibilities of improvement than by strict attention to the economical side of the business. He has now no connection with the company, which is in possession of his patents, which I understand are to be worked in conjunction with a secret process of Mr. W. McCowan, a director of the new concern.

A new company has recently been formed at Warrington to manufacture a substitute for rubber, especially for use in the insulation of cables. The invention is said to be due to a German

chemist who has been closely concerned with bringing synthetic indigo to a commercial success. The new company is financially backed by Messrs. Siemens, the British Insulated and Helshy Cable Co., and others, and it may, therefore, be taken that the discovery is of considerable importance.

Although I have heard this product referred to as synthetic rubber, I believe that this is not a correct appellation. Various bodies have had a successful application for insulating purposes which by no means exhibit the principal characteristics of rubber; for instance, "diatrine" and "gutta gentach," to say nothing of the vulcanized bitumen used by Callenders.

REMOVING RESIN FROM RUBBER.

ANOTHER patent for this purpose has been taken out by Dr. Dreyfus, Dr. Friedl, and Dr. Bentley, the first named being the managing director and the others chemists of the Clayton Aniline Co. This company which is located in a suburb of Manchester, carries on tar distillation and aniline color manufacture, and is well known to the rubber trade as suppliers of solvent naphtha. The main feature of the patent is the removal of resins from rubber by the use of hyridine or a higher base, the extraction being made on the rubber while still containing its usual moisture, this water preventing the pyridive from dissolving the rubber. I don't quite see where the particular advantage of using coal tar bases for this purpose comes in, unless it is that the patentees have an excess of the solvent for which they desire a market. They do not entirely limit their claim to pyridine bases, but include mixtures of these with the old established solvents, such as alcohol and acetone.

With regard to the use of coal tar bases I may remark that they were the particular solvent referred to in Robinson Brothers & Cliff's patent of six or seven years ago. In this case the solvent was used to dissolve rubber scrap in a reclaiming process. After considerable experimenting the patent was abandoned, one of the objections to the product being the disagreeable smell the pyridine gave to the rubber. Messrs. Robinson Brothers are large tar distillers and naphtha producers, and located at West Bromwich, and elsewhere, and they are anxious to find a use for the higher pyridine bases which they produce as a necessary by-product in a certain branch of their manufacture. I have no information whether the Clayton Aniline Co. are actuated by any such motive, and I am quite open to conviction that the coal tar bases have been selected for this particular purpose because of their intrinsic merits. The patentees refer to the pronounced rubber dissolving properties of pyridine and its bases. It will be remembered that pyridine was adopted by Weber in rubber analysis to remove pitch and asphalt from vulcanized rubber, though someone later on showed that vulcanized rubber was soluble in it to an appreciable extent.

PERSONAL MENTION.

MR. WILLIAM COULTER has recently taken up an appointment with the works of The B. F. Goodrich Co., in America, thus adding another country to the list of those where he has had experience of rubber manufacturing. In England he was for a time at the original Leyland works, then at Charles Macintosh & Co. France and Russia subsequently engaged his serivces, and in more recent years he has been with the Harburg-Vienna Co., at Harburg and Wimpassing, proceeding from thence to the Hungarian Rubber Co., at Budapest. Mr. Coulter, who is a bachelor, is evidently of somewhat nomadic habits, to whom an engagement for a limited period appeals more strongly that it would to a family man. Waterproof textures and elastic thread are branches of the rubber trade in which Mr. Coulter specializes.

I regretfully have to record the sudden death of Mr. Lewis Johnstone, B. SC., an Edinburgh man who had been for many years in the Manchester district connected with the now defunct Radax tire. Of late years Mr. Johnstone had devoted himself to the perfecting of a motor tire for which he took out one or two patents. For some time past he had been engaged on this tire at the well known Helsby Cable works, and this company is now the owner of his patents upon which their new tire department is founded.

Mr. J. A. Fallows, who was for many years manager of the Manchester offices of the Leyland and Birmingham Rubber Co., is now the general manager of the works at Leyland. Mr. Fallows was at the Brussels exhibition when the disastrous fire broke out. The fine exhibit of the Leyland company, in connection with that of the Falatine Heel Co., and others, was completely destroyed.

In the personal mention of my August notes Earl of Vernland should of course have been Earl of Verulam—Verulamium having been the Roman name for St. Albans.

LONDON RUBBER EXHIBITION.

THE Brazilian section at the second International Rubber Allied Trades Exhibition, in London next year, is likely to exceed in extent and interest the very excellent representation made at last year's exhibition by the Commercial Association of Amazonas at Manáos. From the latest number received of the *Revista* of that association it appears that the invitation of the management of the Rubber Exhibition to the Manáos association to be represented next year was received with enthusiasm, and that steps have been taken already to make the Amazon exhibit as complete and fully representative as possible. Circulars have been addressed to the producers of rubber, inviting their co-operation, and to the officers of the various municipalities asking them to encourage the movement. Exhibits are invited of all kinds of rubber produced in the Amazon region, including balata. A requisition has been made for space in the coming exhibition equal to 100 square meters [= 1,076 square feet]. The governor of Amazonas, Senhor Colonel Antonio Bittencourt, has been named as one of the vice-presidents of the Rubber Exhibition.

The management of the Rubber Exhibition have received from the Booth Steamship Co., Limited, a letter intimating that they will be prepared to carry free of charge all exhibits of rubber from the Amazon valley, including any from Iquitos (Peru), as well as from Maranhão and Ceará, on the south Brazil coast.

At the recent annual meeting of the United Planters' Association of Southern India it was resolved:

"That this association do decide to support the Rubber Exhibition of 1911 to be held in London; that the Secretary be asked to arrange for space at the International Rubber Exhibition either by letter or by cable; that Mr. Richardson be requested to be our delegate; that a committee be formed to undertake all the necessary arrangements in connection with the exhibition, and that the association be indemnified against loss by the delegates of those associations largely interested in rubber."

The *India-Rubber Journal* (London) says: "Mr. Henry C. Pearson, Editor of THE INDIA RUBBER WORLD, New York, is presenting a cup valued at 100 guineas for the best system for extracting a maximum amount of latex from the *Castilloa elastica* at a mimimum cost. The cup is intended to be competed for at the Rubber Exhibition next year."

The Ceylon chamber of commerce, in conjunction with the Planters' Association of Ceylon, are in favor of Ceylon being fittingly represented at the Rubber Exhibition, and it is proposed to ask the colonial government for a substantial grant to meet the whole cost of the representation.

THE United States-Mexico Rubber Plantation Co. have been organized at Fort Collins, Colorado, under the laws of Arizona and Mexico, to develop 5,000 acres of land, which has been acquired on the river Usamacinta, near Monte Cristo, Mexico. It is proposed to plant *Castilloa* rubber largely with other crops for earlier profits, the capital to be secured by selling acreage certificates. The directors and officers of the company are leading business men in Fort Collins, Denver.

Recent Patents Relating to Rubber.

UNITED STATES OF AMERICA.

ISSUED AUGUST 2, 1910.

NO. 965,847. Vehicle wheel rim. [For pneumatic tires.] J. M. Alderfer, Sharon Center, Ohio.

965,922. Resilient tire. E. B. Mérigoux, Paris, France.

965,998. Hose coupling. T. Evans, Centralia, Wash.

966,031. Process of making cushion vehicle tires. J. A. MacMillan Co., Dayton, Ohio.

966,133. Stair nosing and the like. G. B. Staples, Philadelphia.

966,302. Tire repair vulcanizing device. F. A. Blanchard, assignor of one-half to A. L. Blanchard, both of Norfolk Downs, Mass.

966,385. Recovery of rubber. [Relates to the removal of resins for guayule.] M. Delafond, Mexico City, Mexico.

Trade Mark.

49,178. Rutherford Rubber Co., Rutherford, N. J. The symbol £ for "Sterling" rubber tires and rubber tubing.

ISSUED AUGUST 9, 1910.

966,438. Tire armor. H. A. Gamble, assignor of one-fourth to J. H. Murch, Jr., both of San Francisco.

966,504. Valve operating hose reel. I. E. Williams, Valley View, Pa.

966,674. Elastic vehicle tire. W. H. Eynon, Cleveland, Ohio.

966,748. Combined stopper and connection for water bottles. J. J. Honecker, Cleveland, Ohio.

966,774. Waterproof boot. F. W. Savaga, Granville, N. Y.

966,925. Hose coupling. H. E. Kittredge, Boston.

967,004. Knee cushion. H. Ehikian, Fresno, Cal.

967,064. Boot and shoe. F. W. Savage, Granville, N. Y

967,065. Cushion tire for vehicle wheels. L. L. Savoie, New Orleans, La.

967,115. Means for locking detachable flanges on demountable rims. A. Dow, assignor to Dow Rim Co., all of New York city.

967,125. Syringe. [Vaginal.] J. H. Huppert, Pittsburgh, Pa.

ISSUED AUGUST 16, 1910.

967,249. Spring tire for wheels. [With cushion tire.] S. A. Schewczik, Vienna, Austria.

967,269. Surgical appliance. S. G. Tibbs, Akron, Ohio.

967,379. Belting. J. W. Hilton, Bellevue, Ky.

967,392. Packing. J. C. Kingsbury, Dudley, Mass.

967,457. Tire armor. P. M. Stephan, San Francisco.

967,506. Vehicle tire. [Cushion.] E. W. Evans and P. J. Evans, Waltham, Mass.

967,585. Compressive hose. W. J. Teufel, Stuttgart, Germany.

967,643. Vehicle tire. [Cushion.] J. A. Keller, assignor to L. Shubert, both of New York city.

967,679. Hose coupling. W. H. Shepheard, Portsmouth, Va.

967,704. Tire protector. J. A. Bailey and C. F. Purkitt, Willows, Cal.)

967,707. Anti skid tire and stud therefor. C. S. Beebe, assignor to L. J. Elliott, both of Racine, Wis.

967,751. Manufacture and repair of india-rubber goods. [From waste rubber.] T. Gare, New Brighton, England.

967,796. Fire hose carrier and spanner. R. Lovell, San Diego, Cal.

967,806. Tire shield. H. F. D. Meyer, New York city

Trade Mark.

45,826. The New York Mackintosh Co., New York City. The fanciful picture of a child in a storm cape. [See THE INDIA RUBBER WORLD, September 1, 1910—page 432.] For waterproof clothing.

ISSUED AUGUST 23, 1910.

967,887. Resilient wheel. J. G. Daw, Wellfield, Llanelly, England.

967,901. Hose. [Relates to a fastening or joint for fire hose.] E. T. Greenfield, Kianesha, N. Y.

967,946. Combination eraser and pencil sharpener. C. H. Marshall, assignor to G. D. Kirtland, both of Syracuse, N. Y.

967,979. Tire protector. W. E. Sampson, Grand Island, Neb.

967,982. Method for treating the interior surfaces of molds. A. A. Schmidt, Chicago.

968,069. Tire. [With bars for holding it in place.] L. M. Nelson, Pennington, N. J., assignor to Nelson Tire Co., a corporation of Wyoming.

968,086. Tire armor. F. H. Schulenberg, Dunkirk, N. Y

968,105. Overshoe retainer. P. K. Young, Omaha, Neb.

968,184. Tire protector. D. D. Murray, assignor of one-eighth to N. S. Stalker, both of Duluth, Minn.

968,414. Anti skidding and traction device for automobile and other wheels. W. Reagan, Philadelphia.

968,415. Anti skidding and traction device for automobile wheels. *Same.*

968,416. Anti skidding device. *Same.*

968,446. Tire fastening device. R. S. Bryant, Columbus, Ohio, assignor to the United Rim Co., Akron, Ohio.

Trade Mark.

41,557. Boston Rubber Shoe Co., Boston. The word *Hub.* For rubber boots and shoes and rubber shoe soles.

ISSUED AUGUST 30, 1910.

968,607. Pneumatic pad or horse collars. W. A. Skillman, Springfield, S. D.

968,706. Tire protector and tread grip. A. C. Smith and S. W. Smith, Albion, Ill.

968,777. Automobile tire. C. A. Lieb, New York city.

968,880. Demountable tire rim. A. Paul, assignor to Alderwerke vorm. Heinrich Kleyer A.-G., both Frankfort o/Main, Germany.

968,941. Vehicle tire. J. E. Harrison, New York city.

968,980. Non puncturable tire. C. R. Rawdon, St. Louis, Mo.

969,019. Hose coupling. E. H. Wilson and S. J. Gallagher, Coalinga, Cal.

969,077. Cushion tire. T. Purcell, Roanoke, Va.

969,100. Machine for reducing vulcanized rubber to powder. T. Gare, New Brighton, England.

969,131. Method of making rubber tires. H. Z. Cobb, Malden, Mass.

[NOTE.—Printed copies of specifications of United States patents may be obtained from THE INDIA RUBBER WORLD office at 10 cents each, postpaid.]

GREAT BRITAIN AND IRELAND.

PATENT SPECIFICATIONS PUBLISHED.

The number given is that assigned to the Patent at the filing of the application, which in the case of these listed below was in 1909.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, AUGUST 4, 1910.]

*8,398 (1909). Hoof pad. A. E. Alexander, London. (A. G. Uptegraff, Lenox, Massachusetts.)

8,506 (1909). Elastic tire formed of india-rubber balls and cups adjustable upon bolts secured to a flexible rim of steel strips. J. R. Amigó, Barcelona, Spain.

*8,733 (1909). Sheet packing for pipe joints. Finely divided iron mixed with rubber solution is worked into a foundation of open mesh woven asbestos. V. Tompkins, Jersey City, New Jersey.

8,760 (1909). Football valve. E. Schmidt, Leipzig, Germany.

*8,763 (1909). Fabric for tires and rubber hose and belting. E. D. C. Bayne and L. A. Subers, Cleveland, Ohio.

8,908 (1909). Athletic boot sole. H. W. Brown, Glasgow, Scotland.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, AUG. 11, 1910.]

9,064 (1909). Extraction of rubber from plants, by mechanical means. L. Guignet, Lyon-Villeurbanne, France.

9,093 (1909). Lubrication of rubber windings of golf balls. R. F. Hutchison, Prestwich, and R. Milne, Lenzie.

9,185 (1909). Tire with air tube enclosed in a cover. F. S. Willoughby and two others, Manchester.

*9,213 (1909). Hoof pad. G. Loeffler, Tampa, Florida.

9,284 (1909). Waste rubber manufactured without grinding or cutting up into pieces, by cutting it to the size of the new article required and reheating in a mold under pressure. H. Markus, Salford.

*9,432 (1909). Packing consisting of flexible metal ring pressed on to the rod by rubber backing. J. M. Rhodes, Memphis, Tennessee, and J. N. Whittenberg, Monterey, Mexico.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, AUGUST 17, 1910.]

9,527 (1909). Sole and heel protector. A. Tullett, Birmingham.

9,528 (1909). Sole and heel protector. A. Tullett, Birmingham.

9,542 (1909). Flooring and stair tread. C. L. Cuthbe, London.

9,544 (1909). Cushion tire. J. B. Aillot, Monceau-les-Mines, France. [Void.]

*9,560 (1909). Catamenial pouch. F. A. Frommann, St. Louis, Missouri.

9,583 (1909). Tire comprising an outer band of hard rubber resting on an inner band of soft rubber. J. A. Faesen, Hilversum, Holland, and two others.

*9,699 (1909). Hoof pad. M. Kane, Cincinnati, Ohio.

9,838 (1909). Stop for leaks in fire hose and like tubes. G. W. Sturgess, Leicester.

9,852 (1909). In disk wheels composed entirely of rubber the rubber is made of gradually increasing hardness from the tread to the center of the wheel. L. A. van Rijn, Singapore.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, AUGUST 24, 1910.]

10,086 (1909). Detachable tire rim. A. Latimer, London.

10,127 (1909). Spring wheel with pneumatic tire. R. C. Wilford, Garforth, Leeds.

10,330 (1909). Heel protector. H. W. Smart, West Ealing, and two others.

10,371 (1909). Non skid stud for tires and horse shoes. J. H. Holmes-Dodd, London.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, AUGUST 31, 1910.]

10,581 (1909). Mold for golf balls. G. H. Murphy, Catford, and C. B. Bernard, Lee, Kent.

10,596 (1909). Non skid device for motor vehicles. L. Sterne, London. (J. B. Blandy, Funchal, Madeira.)

10,645 (1909). Machine for manufacturing rubbered cord for tire covers. T. Sloper, Devizes, Wiltshire.

10,710 (1909). Tire rim with detachable side flange. A. F. Lange, London.

10,733 (1909). Solid rubber tire with a circumferential aperture in which is compressed an endless helical spring. E. J. Duff, Liverpool.

10,737 (1909). Pneumatic tire with studded tread. L. I. Perry, London.

10,750 (1909). Solid rubber tire perforated to receive inflated balls. E. J. Hurley, London.

10,965 (1909). Vehicle wheel with resilient cushion. C. Baggini, Italy.
10,999 (1909). Elastic tire supported by springs. W H., E., and F. W. Brierley, Rochdale.
11,079 (1909). Spring wheel with compressed air cushion and rubber tread. J. Spyker, Amsterdam, Holland.

THE FRENCH REPUBLIC.

PATENTS ISSUED (with Dates of Application).

412,024 (Jan. 28). W. K. L. Dickson. Leather rendered waterproof with the aid of balata.
412,278 (Feb. 3). Aktiengesellschaft Metzler & Co. Process of manufacturing balloon fabrics.
412,405 (Feb. 8). L. Durochat and P. Millon. Process of making elastic tissues.
412,649 (Feb. 5, 1910). Helsingborg Gummifabriks Aktiebolaget. Manufacture of hollow rubber balls.
412,703. (Feb. 16). J. Bieneck. Multiple pneumatic tire.
412,745 (Feb. 17). J. Neff, Sr. Pneumatic tire.
412,857 (Feb. 19). L. G. Tetton. Pneumatic tire cover.
412,902 (Feb. 21). E. Balazs. Pneumatic tire tread
413,016 (Feb. 24). S. E. Richardson and R. Price. Pneumatic tire protector.
413,064 (Feb. 26). A. Metz. Pneumatic tire protector.
413,073 (Feb. 26). Royé and L'Huillier. Machine for the manufacture of tire envelopes.
413,118 (Jan. 24). R. W. Cater and G. Schofield. Tool for tapping rubber trees.
413,128 (Feb. 2). Gummiwaarenfabrik S. Herz. Process for the manufacture of tire envelopes.
413,190 (March 1). S. Balliani. Demountable pneumatic tire.
413,219 (March 2). W. N. Booth. Improvement in the manufacture of demountable tires
413,220 (March 2). P. Orange. Manufacture of artificial flower stems.
413,230 (March 2). Continental-Caoutchouc-, und Gutta-Percha-Compagnie. Auxiliary tires for automobiles.
413,242 (March 3). de Lostalot. Pneumatic tread for bicycles.
413,292 (March 5). L. Salvatuo. Protective tread for tires.
413,345 (March 7). C. Zuche. Process for the manufacture of cycle tires.
413,419 (March 9). C. de Bos-Zampa. Pneumatic tire protector.
413,575 (March 12). A. Spencer. Pneumatic tire.
413,699 (March 17). C. J. Bailey. Pneumatic tire tread

[NOTE.—Printed copies of specifications of French patents can be obtained from R. Robet, Ingenieur-Conseil, 16 avenue de Villier, Paris, at 50 cents each, postpaid.]

GERMAN ELECTRICAL PROGRESS.

IN a summary of progress in Germany a correspondent of the New York *Journal of Commerce*, writing from Hamburg, says in regard to the activity in the electrical interest in that country:

"Another section of industry that has promoted the boom in shares is the electrical trade. This industry is doing a splendid business, and its prospects for future work and development are bright. The Bavarian Legislature has recently passed a law authorizing the development of an immense water power in the mountains above Munich, and a company has just been organized to develop a huge water power on the Rhine between the Duchy of Baden and upper Alsace. German companies are also interested in new power plants now in course of construction above Basle. One of the big Berlin electrical companies has recently contracted to establish a power plant at Saarbrucken.

"This same company, the Algemeine Elektrizitäts-Gesellschaft, is also about to bring a new electric lamp upon the market which promises to eclipse the older kinds of arc lights. The Allgemeine controls the Gesellschaft für Elektrische Unternehmungen at Zurich, and that company has recently taken steps to absorb the Lahmeyer concern of Frankfort, another big electrical establishment. This amalgamation is another important step toward the elimination of competition in the German electrical industry, as well as toward a sharper fight for foreign business.

"For the first half of the year the exports of electrical goods amounted to $24,000,000, against $19,475,000 for the first half of 1909. A number of establishments for separating nitrogen from the atmosphere by electrical processes are in course of construction in Germany, and in other countries, with German capital. Next year such a plant with 120,000 horsepower will be completed at the Rjukan waterfall in Norway. In view of all these promising features of the industry, the prices of electrical shares have been pushed up briskly this summer, and they now stand at a higher level than ever before."

OIL FROM RUBBER TREE SEEDS.

THE United States consul-general at Singapore suggests that the oil of seeds of *Hevea Brasilliensis* will ultimately be of great commercial value. He recalls that it was a long time before the oil of cotton seeds became a valuable commercial factor. The consul general (Mr. DuBois) reports that at present there is such a demand for the seeds of *Hevea* for planting that the supply is not sufficient. It is now suggested by experts, however, that in erecting machinery on new rubber plantations the plans should be made with a view to rubber seed crushing machines being included later. This would leave a residue on the estates which it is believed will prove good for cattle food, as well as a fertilizer for rubber trees. [United States *Daily Consular and Trade Reports*, September 13, 1910.]

At a recent meeting of the United Planters' Association of South India, Mr. R. D. Anstead mentioned that a large number of the Pará rubber trees planted in that country are already beginning to bear seed, and each year more will do so. It has been estimated that trees after the fifth year will yield 500 seeds each, and the product of 400 trees will weigh a ton. It is stated that the seeds contain about 20 per cent. of an oil which has been valued at $100 (gold) per ton. Mr. Anstead was of the opinion that the planters should gather the seed, crush it for the oil, and use the residue for fertilizing the rubber plantations.

ADULTERATION OF LINSEED OIL.

THE recent high prices of linseed oil, says *Iron Age-Hardware*, has increased the use of adulterants to a considerable extent. But it must be borne in mind that there are no crushers of flaxseed—manufacturers of linseed oil—who adulterate their product. All the adulterating is done by parties who buy the pure oil. Small jobbers are mentioned as taking oil from a barrel and replacing it with benzine or kerosene. Cotton seed, corn and soya bean oils are also used as adulterants. It is estimated that from 15 to 20 per cent. of the linseed oil now being sold is adulterated. There are possibly few innocent purchasers of adulterated linseed oil. The inducement of a price lower than at which pure oil is sold is necessary to sell the "doped" stuff.

LOWER PROFITS OF LINSEED OIL.

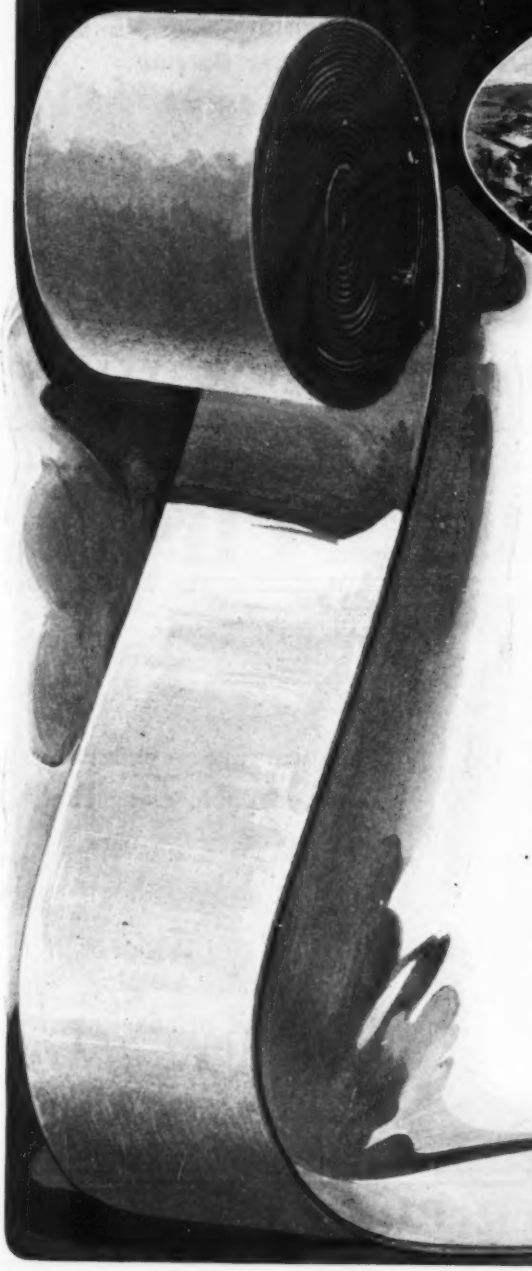
AT the annual meeting of shareholders of the American Linseed Co., in New York, on September 13, the reports for the fiscal year ended July 31 showed net profits of $720,952, against $979,600 for the preceding year. Profits equaled 4.3 per cent. on $16,750,000 preferred stock, compared with 5.85 per cent. earned on the same stock in the previous year. The reduced earnings are attributed to the smaller crop of flaxseed in the United States, and the consequent higher price of seeds. The company are working to develop a wider interest in flaxseed culture among American farmers.

ONE WEAK SPOT.—"You ought to have your car equipped with demountable rims," said an automobile man to Richard C. Jenkinson, the other day. "All you have to do is carry an extra rim with inflated tire. In case of a puncture it can be easily attached by a twelve-year-old child in two minutes."

"Yes," said Mr. Jenkinson, "but the trouble is always to find the twelve-year-old child."—*Newark News.*

DURING the crop year 1909-10 the Cicely Rubber Estates, Limited, obtained 60,000 pounds of *Hevea* rubber from 10,000 trees, or an average of 6 pounds per tree. The average yield was 1.35 pounds in 1905-06; 2.37 pounds in 1906-07; and 4.25 pounds in 1907-08.

GOODRICH RUBBER BELTING



THE LARGEST FACTORY AND MOST COMPLETE EQUIPMENT IN THE WORLD FOR THE MANUFACTURE OF RUBBER GOODS

PINNACLE BRAND.—An extra high quality belt of friction-surface style. A better belt cannot be produced. Recommended for main drives and other places of hard usage.

MARATHON BRAND.—A light flexible friction-surface belt for planers and other high-speed wood-working machines. It does the work and does it right.

STERLING BRAND.—A belt of special construction, particularly adapted to mine elevators and oil well drilling.

GOODRICH AXLE LIGHTING.—Of special design, for railroad axle lighting. Being used successfully by many prominent railroads.

STANDARD GRADES.—***PILGRIM*** and ***ROB ROY*** for all general work.

CONVEYOR BELTS FOR ALL CONVEYING USES

LONGLIFE BRAND for hard duty. ***ECONOMY BRAND*** for ordinary duty.

THE B. F. GOODRICH COMPANY

AKRON, OHIO

NEW YORK BELTING AND PACKING CO., Ltd.

MANUFACTURERS OF A COMPLETE LINE OF HIGH GRADE

MECHANICAL RUBBER GOODS

Including Cobb's Piston & Valve Rod Packing, Indestructible White Sheet Packing Vulcan High Pressure Spiral Packing, "1846" Para Rubber Belting, Magic Garden Hose, Air Brake, Air Drill, Steam, Suction, Water Hose, etc.

Original Manufacturers of Interlocking Rubber Tiling.

Nos. 91-93 CHAMBERS STREET, NEW YORK

RUBBER BELTING

"SHIELD HIGH-GRADE" BRAND

Every foot guaranteed in strongest possible manner

We make everything in rubber

Our warrant is indelibly stamped upon every Belt to protect the user

Write for Catalog and prices

THE MECHANICAL RUBBER CO., CLEVELAND, OHIO

Points on the Cotton Situation.

THE UNITED STATES AS A COTTON COUNTRY.

IT is an interesting fact that, whereas the use of cotton antedates history, and so much cotton had been produced elsewhere before the settlement of America, the growth of this product has latterly become more important in the United States than in any other country, or in the rest of the world besides. In view of the high price of raw cotton, which shows no indication of early decline, the increased production of this commodity abroad would be welcomed by the manufacturers of the United States, as tending to reduce the cost of the material required by domestic spinners.

This journal from time to time has recorded the efforts in various other countries to promote the growth of cotton, and while a certain amount of encouragement has been evident, the United States continues in the lead in the growth of cotton. In a Bulletin of the United States census bureau at Washington appear some diagrams illustrating the mass of figures in the shape of cotton statistics, which are presented here as showing at a glance the importance of this country as a source of the world's cotton supply. It is not enough that portions of Africa should be admirably adapted to the growth of cotton; there is lacking a supply of labor. Nor does it suffice that India is so fully populated; there is lacking there an intelligent class of labor, and, what is more important, intelligent supervision, and systemization of labor organization and the marketing of the product.

THE WORLD'S PRODUCTION OF COTTON.

[Proportion of the world's mill supply contributed by each country, growth of 1908.]

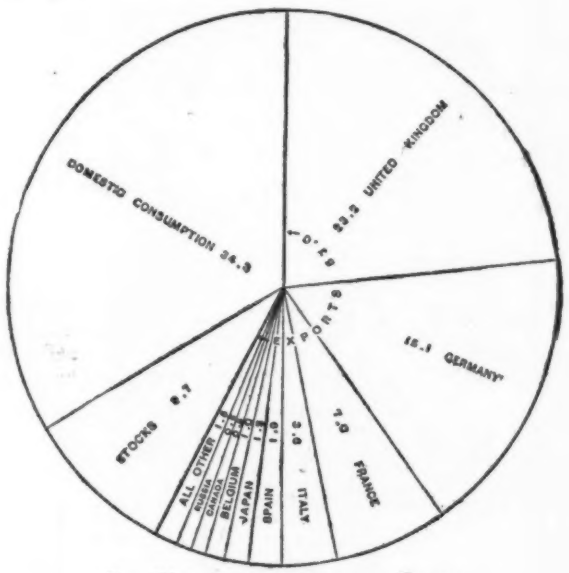
It is plain, therefore, that whatever may be the ultimate result of efforts to cultivate cotton in other parts of the world, the United States must for a long time continue to be the chief source of cotton, and that no other country can be looked to to contribute enough to the world's supply to relieve the pressure upon the American supply, and reduce materially currrnt prices of this important textile.

COTTON IN THE BRITISH COLONIES.

THE British Cotton Growing Association, organized several years ago for the purpose of promoting the culture of cotton throughout the Bristish Empire, was planned to operate with a capitalization of £500,000 [=$2,433250]. At last accounts the amount subscribed had reached £460,000. The association has been active from the beginning in promoting the growth of cotton, particularly in West Africa, where encouraging results have been obtained. They have been stimulated to activity by the high cost of cotton generally, which has entailed hardships upon the industry in Lancashire and unsettled British industrial conditions.

SUPPLY OF SEA ISLAND COTTON.

THE Sea Island cotton crop for the year ended September 1 is reported by Messrs. John Malloch & Co., of Savannah, Georgia, as somewhat smaller than in the preceding year, though in excess of the recent average. They estimate: For Georgia, 53,124 bales; Florida, 28,711 bales; South Carolina, 14,821; total, 96,656 bales. Estimating 1,800 bales to have been carried over, would make the crop actually grown in 1909-10, 94,856 bales. Comparison for six years:



THE WORLD'S CONSUMPTION OF COTTON.

[Proportion of the supply for 1909 consumed in the United States and in other countries.]

1904-05 ..... bales	102,191	1907-08 ..... bales	85,024
1905-06	123,789	1908-09	101,420
1906-07	58,932	1909-10	96,656

The shipments for six years has been:

	Domestic Mills.	To Europe.	Total.
1904-05 ..... bales	63,430	40,017	103,447
1905-06	90,909	34,103	125,012
1906-07	40,006	19,414	59,420
1907-08	52,825	29,685	82,510
1908-09	79,446	22,857	102,303
1909-10	71,783	25,326	97,109

From the best information available it appears that the coming crop should be about the same as last season, or, with good weather, a little larger. Prices continue high, but the opinion is expressed that if the mills will remain out of the market for a while, the people in the interior will be willing to send in their cotton at lower than the present rates.

The price of "Fancy" Sea Island grades at the beginning of September, 1910, was 32 cents; September, 1909, 22 cents; and September, 1908, 20 cents.

The number of bales of cotton ginned from the growth of 1910 to September 1, 1910, and comparative statistics to the corresponding date in three years preceding, is reported by the United States census office:

Bales	1908.	1909.	1910.
1907. 200,278	402,229	388,342	356,824

THE HIGH PRICE OF COTTON GOODS.

At the semi annual convention of the National Association of Cotton Manufacturers, held at Portsmouth, New Hampshire, beginning on September 15, the opening address by the president, Mr. Franklin W. Hobbs, asserted that in the face of high prices for raw materials and high rates of wages on one hand, and the insistence upon low prices for manufactured products on the other hand, the cotton manufacturing trade during the half year had witnessed troublous times. He intimated that there must be a gradual advance in the prices of products until the manufacturers can make a fair return on the capital invested in the business. Mr. Hobbs pointed out that since the foundation of this association, 50 years ago, it had consistently worked in the direction of improved conditions in the conduct of the cotton trade as a whole, but many reforms remain to be made. For instance, he said:

"On an order for 100 bales, it may vary from 30,000 pounds to 60,000 pounds and yet constitute a good delivery on an order for 100 bales. Is it not time for us to insist that 100 bales of cotton shall mean 50,000 pounds of cotton, and to so specify in our contract and insist on delivery within one per cent. of the weight specified? Thus we would make the weight rather than the number of bales the real basis. When we sell 50,000 pounds of yarn we are expected to deliver that amount—why not buy our cotton in a similar may?"

NEW TRADE PUBLICATIONS.

THE newest catalogue of The B. F. Goodrich Co. (Akron, Ohio) is devoted to their Druggists' Rubber Sundries. It is not only artistically got up, but is otherwise perhaps the most complete catalogue of its kind ever published. Touching on a

few of the newest additions and improvements, one finds among the hot water bottles one called the "Marathon," which is unique as to shape, being perfectly elliptical. Another which may be mentioned, the "Gibraltar," is a new cloth insertion article with a truly reinforced seam. The list of fountain and combination syringes is probably the most complete manufactured by any firm. A new and neat feature in connection with these, is the method of packing. Heretofore the syringe bag had to be doubled over in the box which held it. By the new way, the box is used for displaying as well as carrying. It has a false bottom which slides out and which can be raised like an easel; this shows the bag in full length, with one end slightly raised, and with the appliances alongside of it. This box is paper covered and the color schemes used are very attractive. Another improvement is the new covering for air mattresses, which are made of ticking, and can easily be removed, adding to the cleanliness. They are made especially for hospital use and can be had in the regulation sizes. Small air cushions too are made up in tapestry effect fabrics or in a solid tan color. In the back of the catalogue, ingeniously held by means of a pocket in the cover, is the firm's latest price list. The booklet containing the prices can be removed, if desired. The catalogue may be found of use in the household as well as in the store. [5¾" x 8". 51 pages.]

The B. F. Goodrich Co. have just issued the most complete catalogue of Mechanical Rubber Goods which they have yet got out. It is notable for the variety of products described, and for the number of items that are new, or practically so, while the staple lines to which they have devoted their energy for 40 years continue to be listed. No fewer than 55 pages are devoted to Hose, under 36 headings. This department is embellished with 57 illustrations, many of which relate to more than one grade of hose—some of them to a half dozen. The prominence given to paper mill equipment, conveyor belting, and vacuum hose, testify to the growing importance of these newer uses of rubber. Special attention is given to equipment for the beet sugar industry, and the company have taken on the manufacture of interlocking tiling [5¾" x 8". 172 pages.]

W. D. Allen Manufacturing Co. (Chicago) devote their Cicular No. 168 to Lawn Sprinklers for the season of 1911, which shows that they are beginning in good time for next year's trade. It is interesting to notice that they list a number of novelties. [3½" X 6". 32 pages.]

The United and Globe Rubber Manufacturing Cos. (Trenton, New Jersey,) have issued a new catalogue of Mechanical Rubber Goods for the trade generally, which is very complete and concise in style. It is likewise attractive in appearance, being especially well illustrated, and will prove a handy reference book for the company's many customers. [6" x 9¼", 76 pages.]

The McIlroy Belting and Hose Co. (Hammond, Indiana) issue a catalogue of their Rubber-Ite Belting, with testimonials from many users of this commodity. [4" x 7". 12 pages.]

The Miller Rubber Co. (Akron, Ohio) issue a new catalogue of Druggists' Sundries and Surgical and Miscellaneous Rubber Goods, illustrating attractively a very extensive line, including several novelties of interest. [4½" x 8½". 94 pages.]

National India Rubber Co. (Bristol, Rhode Island) present a catalogue of "National" Packings and Mechanical Rubber Goods, which is the fullest exposition of this branch of their production that the company has yet issued. Though so long established, the National company is thoroughly up to date in the variety of articles which it manufactures, each new catalogue including something not offered before. [6" x 9". 101 pages.]

ALSO RECEIVED.

C. W. Hunt Co., New York.=General Catalogue No. 102. [Conveying and other machinery.] 112 pages.

The Blaisdell Machinery Co., Bradford, Pa.=The Blaisdell System of Vacuum Cleaning. 31 pages.

Blackstone Manufacturing Co., Chicago.=Blackstone Vacuum Massager. 24 pages.

Abbé Engineering Co., New York.=Abbé Ball and Tube Mills. [For grinding or pulverizing many materials, including guayule shrub.] 40 pages.

The last edition of Ferguson's "Ceylon Handbook" shows Liptons, Limited, to have, on one estate, 700 acres in rubber alone and 304½ acres in tea with rubber interplanted, while another estate has 6,000 rubber trees, the acreage not being stated.

The Obituary Record.

COLONEL GEORGE T. PERKINS.

THE sudden passing away of Colonel George Tod Perkins at his home in Akron, Ohio, on September 8, was an event entirely unlooked for at the beginning of the month, when THE INDIA RUBBER WORLD presented a record of the success of The B. F. Goodrich Co.—on the occasion of the fortieth anniversary of that company—with which Colonel Perkins was actively connected from its beginning. As already stated in these pages, Colonel Perkins invested capital in this business at the start; when the business became a corporation he became a director, continuing as such until his death; and for nearly 20 years he held the office of president, resigning early in 1907 as a step toward narrowing his business activities.

The subject of this sketch was born on May 5, 1836, on "Perkins Hill," Akron, being the son of Colonel Simon Perkins, who has been called the "father of Akron." The mansion which the son built in later years now stands on the same elevation. George Perkins was educated in the Public schools at Akron and at Marietta College, in Ohio. The military title which he wore was won during the civil war, during which he saw more than four years of active service, participating in many important battles, and being wounded at Chattanooga.

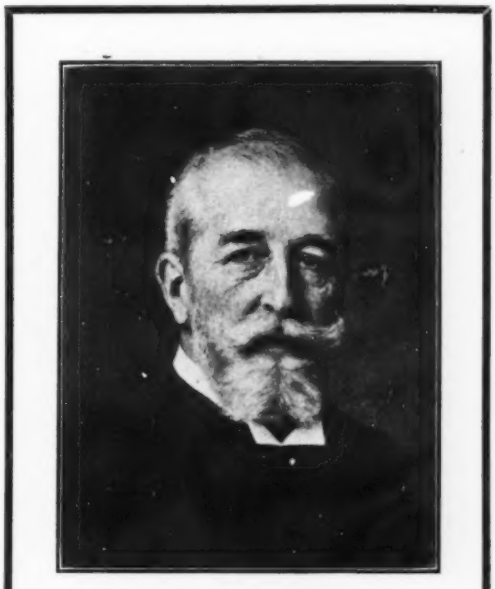
THE LATE GEORGE T. PERKINS.

Colonel Perkins returned home from the war to engage in business, becoming secretary to Taplin, Rice & Co., of Akron. In 1870 he became cashier of the Bank of Akron and in 1876 its president. Twelve years later when this was merged with the Second National Bank of Akron, Colonel Perkins became president of the larger institution, holding the office until March 1, 1904.

Colonel Perkins was among the first to encourage the late Dr. Goodrich to engage in the rubber industry in Akron, and from the beginning his counsel as to the finances of the company was of great benefit. From the time the company became incorporated Colonel Perkins was its treasurer, until, upon the death of Dr. Goodrich, he became president. A personal sketch of Colonel Perkins at greater length appeared in THE INDIA RUBBER WORLD, February 1, 1907 (page 143), and a history of the rubber company September 1, 1910 (page 439).

It may be added that just before the war, Mr. Perkins went to Youngstown, Ohio, where he was connected with the iron business of his uncle, David Tod, who was later governor of Ohio. He was married in 1865 to Miss Mary Rawson, and is survived by their daughter, the wife of Charles B. Raymond, now secretary of The B. F. Goodrich Co.

Funeral services were held at the Raymond residence on September 10, and the body was placed in the family vault in Glendale cemetery. The pall bearers were Bertram G. Work, F. H. Mason, E. C. Shaw, H. E. Raymond, W. A. Means, and P. W. Leavitt, representing The B F. Goodrich Co., and George D. Bates and L. D. Brown, representing the Second National Bank. Military honors were paid to the deceased by a squad of Grand Army veterans of Buckley Post.



THE LATE FRANZ CLOUTH.

Colonel Perkins was a public spirited citizen and his memory will be perpetuated by many of his acts for the benefit of the city, including the gift of a beautiful park. He was an unostentatious contributor to very many charities.

FRANZ CLOUTH.

THE founder and senior head of the important German firm, Franz Clouth Rheinische Gummiwaaren-Fabrik m. b. H., at Colongne-Nippes, died unexpectedly on the morning of September 7. Thus is lost to the trade of his country one of the ablest, most resourceful and most successful members.

Franz Clouth was born on February 18, 1838, in Cologne, where he attended school and received his business training. After spending a few years abroad to complete his education, he returned to Cologne in 1860 to start in business for himself. Soon he turned his attention to the rubber goods line, which was then only in its infancy, hardly foreshadowing its later world-wide possibilities and present commercial importance.

As early as 1864, he began manufacturing on a small scale. The unusual economic wave which swept over Germany after the great political events of 1870-71 could not but favorably affect the development of his business, so that in 1875 a new and larger plant had to be erected in Nippes, becoming more important and extensive from year to year.

The development of applied electrotechnics in its ever widening range, whose great future possibilities Franz Clouth clearly foresaw, induced him to erect in 1891, near his former factory, a new building for turning out insulated wire and cables of all kinds. Owing to the extension of his cable works, it appeared desirable that its management, which up to the present time was merged within the joint control of both plants, be made entirely independent and, accordingly, in 1898, the whole cable department was transformed into an independent enterprise under the firm Land-Seekabelwerke Aktiengesellschaft. With Herr Clouth as chairman of the board. One of the chief reasons for this was, besides, the intention to include the manufacture of submarine cables within the range of the business, that the economic development of Germany and especially her colonial expansion policy warranted the assumption that in the near future she would be bound to enter into competition with England in the branch of transatlantic cable lines.

These circumstances made Franz Clouth realize the necessity of putting up a submarine cable plant on the coast, and the young company, at his suggestion, set to work at once to secure a suitable site for erecting a branch at Nordenham, on the lower Weser. The coöperation of the firm with another one and their respective banking groups, first originated the Deutsche Atlantisch Telegraphen-Gesellschaft, of Cologne, and the Norddeutschen Seekabelwerke Aktiengesellschaft, of Nordenham. Franz Clouth undoubtedly deserves the credit of being the father of the Nordenham works, and consequently of the German marine cable industry in general. It is due to the creative efforts and subsequent developments at Nordenham that it became possible for Germany to inaugurate an independent ocean cable service. One result was the establishment of the German-Dutch-East-European and South American Telegraph companies, in each of which Franz Clouth was a director.

Recently, Franz Clouth took a strong interest in aeronautics, as he had before in electrotechnics, and of late became quite active in the construction of air balloons and dirigibles, one of which gained just recognition for having distinguished itself on the Ila in Frankfort o/M., and in trips to and within Brussels.

In spite of the enormous amount of personal attention his factories demanded and his great loyalty to unconditional duty that called for the utmost exertions, both on his own part and that of his employés, Franz Clouth found time to repeatedly make long trips over Europe, and through Africa and India, during which time he made a special study of the conditions bearing on rubber-plantation culture. He also wrote a monograph on the rubber industry published at Weimar in 1873, 1879 and 1899. An enlarged English edition of this work entitled, "Rubber, Gutta-Percha and Balata," appeared in 1903 in London and New York.

In Franz Clouth, the large industrial circles of Cologne and the Rhein country have lost a well renowned person whose tireless activity will be greatly felt even after his death. The employés joined in a public testimonial in which they said: "We have lost an industrial chief and adviser whose high powers of mind and heart we shall honor perpetually, and cherish in our memories."

Franz Clouth in 1862 married Miss Theodore Wahlenberg, of Cologne, who died during the Franco-Prussian war. In 1872 he married Miss Josephine Baum, of the same city. For some years two sons of Mr. Clouth have been connected actively with his rubber interests, Max Clouth being the active director of the works at Cologne-Nippes.

[For a fuller personal sketch of Herr Clouth see THE INDIA RUBBER WORLD, April 1, 1902—page 207. For a description of the cable works at Nordenham, the issue for January 1, 1908.]

EDUARD FRANKENBERG.

EDUARD FRANKENBERG, the founder and head of the firm, Gummiwerk Eduard Frankenberg G. m. b. H., Hamburg, Germany, died on August 30. He had worked long and successfully in the production of rubber coated fabrics, and with unremitting zeal for the perfection of technical manufacturing methods. The business of the firm will be continued by his capable and experienced associates.

BRITISH OBITUARY NOTES.

THE death occurred recently of Mr. George Frederick Sheath, the head of the firm of Sheath Brothers, manufacturers of specialties in india-rubber and gutta-percha, in London. The house was founded in 1845 by the late James Sheath, who died in 1878, when his brother, the subject of this notice, became the head of the firm. Mr. Sheath was in his eighty-seventh year, but was able to attend to business regularly until within a few months of his death. Mr. James T. T. Sheath, nephew of the deceased and son of the founder of the firm, entered the business in 1886 and became a partner in 1895, and will continue the business.

The death occurred on August 20 of Mr. Henry Phillips, the agent at Coventry for the North British Rubber Co., Limited, in his seventy-fourth year. He was highly respected in Coventry business circles, and had long been identified with the trade in clincher pneumatic tires.

RUBBER PRODUCTION OF THE AMAZON.

THE amount of rubber produced in the Amazon region for the last three crop years has been stated in detail in reports by the imperial German consul at Pará, from which these figures are compiled:

		1907-08.	1908-09.	1909-10.
STATE OF PARA.				
Rubber	*tons*	9,428	10,457	9,931
Caucho		857	1,070	1,130
Total		10,285	11,527	11,061
STATE OF AMAZONAS. [Including the Federal territory of Acre.]				
Rubber	*tons*	16,771	16,587	18,685
Caucho		4,969	5,270	5,474
Total		21,740	21,857	24,159
REPUBLIC OF PERU.				
Rubber	*tons*	3,407	3,176	3,900
Caucho		1,720	1,853	2,000
Total		5,127	5,029	5,900
SUMMARY.				
Rubber	*tons*	29,606	30,220	32,516
Caucho		7,546	8,193	8,604
Total	*tons*	37,152	38,413	41,120
Total	*pounds*	81,905,300	84,685,300	90,653,152

These figures compare only approximately with those obtained from some other recognized sources and printed from time to time in this journal, but they are of interest in showing whence comes the increased production of rubber in the Amazon valley. While the fact is not shown specifically, the major part of the increase comes from the Acre territory.

GEORGE A. TURNER, a life-long resident of Providence, Rhode Island, and a well-known citizen, died at his home there on June 17, after being seriously ill for but a short time. He was born October 17, 1834, educated in Providence, and inherited abundant means. He was one of the incorporators of the Davol Rubber Co. and a director thereafter. He visited the offices of the company on the second day before his death.

Some Rubber Interests in Europe.

NINETIETH BIRTHDAY OF A RUBBER PIONEER.

A HISTORIC figure in the European rubber industry is Herr Ludwig Elder von Reithoffer, who celebrated his ninetieth birthday on August 19. It was this gentleman through whose agency was brought under one control the rubber firms of Menier, in Harburg, and J. N. Reithoffer, in Vienna, under the style Vereinigte Gummiwaren-Fabriken Harburg-Wien, vormals Menier—J. N. Reithoffer. This consolidation was accomplished June 1, 1872, after which the subject of this sketch maintained a connection with the new company for many years as a member of the advisory committee. The Harburg factory was established in 1846, and the Wimpassing factory (near Vienna) in 1854. The founder of the latter, however, Johann Nepomuk Reithoffer, was working in rubber in Austria many years before, and in 1825 started a rubber thread factory in Vienna. The Harburg-Wien company, therefore, is a direct successor to the business of Johann Nepomuk Reithoffer. [See THE INDIA RUBBER WORLD, Jan. 1, 1897—page 126.] Herr Ludwig Reithoffer has for many years stood as the senior pioneer in rubber in Austria, and been able to watch with much satisfaction the influence of his work spread far beyond the Austrian boundries.

LEYLAND AND BIRMINGHAM AFFAIRS.

THE trading profit of the Leyland and Birmingham Rubber Co., Limited, for the year ended June 30, 1910, was £33,039. The dividends amounted to 7½ per cent., this being the third year in succession for which this rate has been paid. For the preceding year the trading profit amounted to £27,978.

At the recent annual meeting of the Leyland and Birmingham Rubber Company, it was mentioned that the directors were desirous that as many of the employés as could do so should invest their money and become shareholders in the company by which they were employed. They would then be in a position of not only earning from a wages point of view, but also from an investment point of view, as a direct result of their labors.

HALF A CENTURY IN RUBBER WORK.

BERNHARD WICKELMANN, employed in the machine shop of Dr. Heinrich Traun & Söhne, (Harburg,) celebrated the fiftieth anniversary of his connection there on July 19. In the morning his neighbors decorated his house, after which he was taken in a carriage to the rubber works, where his fellow workmen had covered a table with gifts for him. Mr. Heinrich Otto Traun, proprietor of the works, presented him with a donation in cash. Wickelmann will in future receive a pension from the company, being now the thirteenth of a group of surviving employés of the Traun works who have exceeded a service of 50 years. [See THE INDIA RUBBER WORLD, July 1, 1910—page 355.]

A NEW RUSSIAN RUBBER COMPANY.

THE Gummiwaren-Fabrik "Russia" Gebrüder Freysinger, at Riga, has issued a circular inviting coöperation for organizing a Russian stock company for the rubber goods trade, under the name of Aktiengesellschaft "Kautschuk." The capital stock of the new company has been fixed at 1,000,000 rubles ($515,000) divided into shares of 100 rubles. The company intends to enter into an agreement with the firm "Russia" under the terms of which the latter would obligate itself to sell its products exclusively to the "Kautschuk" company, without having the right to sell to any other parties, and the new company is to be in a position to obtain the products of the "Russia" almost at the manufacturer's cost price. The organizers of the new company are S. S. Gens, merchant, chief business manager of the "Russia" company; Kommerzienrat B. A. Magner, manager of the Odessa branch of the International Bank of St. Petersburg; and J. A. Brodsky, "hereditary honorary citizen," manager of the Odessa branch of the Northern Bank.

DUBLIN'S CAR TRAFFIC THREATENED.

THE introduction of taxicabs into Dublin is being actively encouraged, particularly by Mr. Harvey du Cros, J.P., chairman of the Dunlop Pneumatic Tyre Co., Limited, who in the past has had such large business connections in that city. He has made arrangements whereby Dublin car drivers can become proficient in the operation of the new cabs without expense to themselves, and a number of the carmen have arranged to take advantage of the new condition. On the other hand, a large element of the carmen oppose the taxicabs, and have formed an organization against the introduction into Dublin of taxicabs, to ruin their business "in order to support an English monopoly." The value of the cab property in Dublin is estimated at £100,000, and the cab owners claim to spend yearly in that city £250,000 for horses, supplies, repairs, and the like.

GREAT BRITAIN.

THE directors of the Gandy Belt Manufacturing Co., Limited, have declared an *interim* dividend of 6 per cent.

The British Murac Syndicate, Limited, declared a dividend of 25 per cent. on the preference and ordinary shares for the first half of their current business year.

India-rubber tiling made by the India Rubber, Gutta Percha, and Telegraph Works Co., Limited, has been laid down in 180 vessels, including 10 ships of the British navy and several foreign battleships.

The Dunlop Pneumatic Tyre Co. (South America), Limited, was registered in London on August 11 with £5,000 capital, to take over the business of the Dunlop Pneumatic Tyre Co., Limited, carried on in South America by B. J. Ebsworth as sole representative of that company.

The newest automobile ordered for King George is a "Silent Knight" Daimler car, of which it is mentioned that "probably the most notable feature will be the very large Palmer tires and Rudge-Whitworth detachable wheels."

Among the advantages to the members of the Royal Automobile Club of Great Britian, it is pointed out that all the associates, whether individual or members of associated clubs, and their private drivers shall have the benefit of free legal representation in any police court in England or Wales on the hearing of any summons arising out of the ownership or driving of private automobiles. The traveling expenses of the solicitors instructed will not be charged to associates.

RUSSIA.

THE Russian-American India Rubber Co., "Treugolnik," of St. Petersburg, has opened a new branch office at No. 125 Petrikanerstrasse, Lodz, Mr. Felix Zielinski having been appointed manager.

GERMANY.

UNDER the style of Gummiwerke Frankfurt Aktiengesellschaft, the old concern Franfurter Gummiwaren-Fabrik A. G., has been registered with a capital of 1,000,000 marks [= $238,210]. The works belonged formerly to the present proprietor of Offenbacher Gummiwerke Carl Stoeckicht, G. m. b. H., at Offenbach.

SWEDEN.

KARMER PER OLOF SAMUELSON has become a member of the Aktiebolaget Continental Caoutchouc Compagnie, at Stockholm, in the place of Axel Hermansonn, a merchant. Manager Carl Friedrich Wilh. Ph. Junge will sign the company's name, with another member of the board of managers.

HARTFORD TIRE MEN IN CONFERENCE.

THE Hartford Rubber Works Co. (Hartford, Connecticut), as usual, this year had as their guests the company's branch managers and salesmen from different parts of the United States. For 15 years past it has been the policy of the company to bring together annually at the factory their representatives from all over the country to enable them to become more closely acquainted with the manufacture of tires and the methods of the home office. The conference was in session daily from September 15 to September 19, the days being given up to different meetings, which began at 8 A. M., lunch being served in the officers' dining room at the factory.

The general policy of the company for the coming year were outlined to the men, selling campaigns planned, advertising methods discussed, and in fact all points of interest covering the manufacture and merchandising of Hartford tires were dwelt upon. Those in attendance were as follows, the figures against each name referring to the numbers on the pictured group:

OFFICIAL BOARD AND HARTFORD STAFF.

J. D. Anderson [1], president.
H. E. Field [2], vice president.
E. S. Benson [3], secretary.
J. P. Krogh [4], treasurer.
D. W. Pinney [6], assistant treasurer.
Charles B. Whittelsey [5], factory superintendent.
F. Kesser [7], sales manager.
M. C. Stokes [20], motorcycle department.
C. Clark [34], automobile tire department.
A. E. Martel [28] and W. H. Reed [45], solid motor tire department.
Guy Turner, repair department.
F. Appleton, shipping department.
J. Sass, master mechanic. G. S. Hulings [40].

BRANCH MANAGERS.

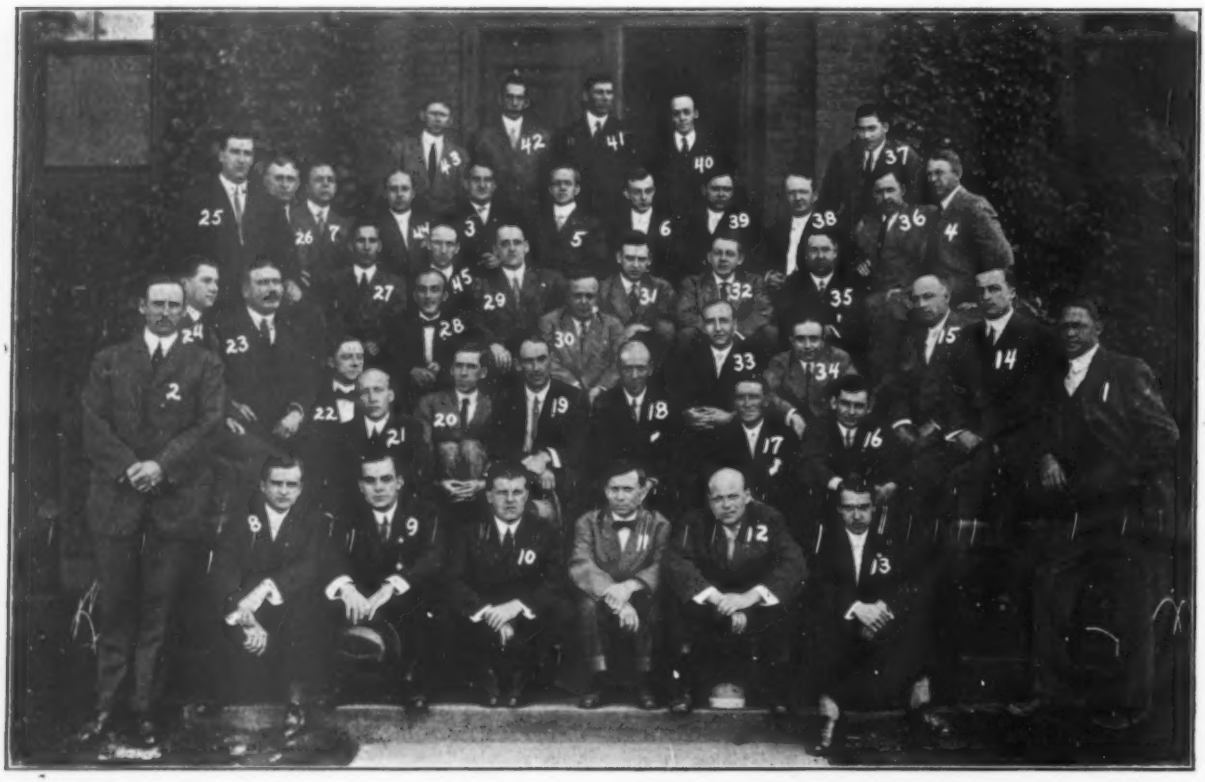
New York—E. S. Roe [17].
Chicago—W. T. Powell [39].
Buffalo—O. S. Johnson [35].
Cleveland—P. H. Goodall [11].
Philadelphia—W. R. Barnes [30].
Detroit—H. C. Severance [10].
Boston—Chase Langmaid [41].
Atlanta—A. W. Kirk [38].

SALESMEN.

Chicago—G. R. Noble [8], H. E. Smith [15], P. B. Simmons [36], A. W. Clark [37], G. H. Wright [42]
Buffalo.—S. N. Keller [9], R. M. Barrett [27].
Cleveland—H. B. McIntosh [12], T. McClurg [33].
Philadelphia—J. Hoffman [14], E. L. Duffee [16], H. V. Koons [21], E. H. Johansen [24], Garfield List [29].
Connecticut—E. S. Edwards [18], James Morgan [43], C. Towne [13].
Boston—L. C. Havener [19], L. Frohock [26], G. D. Niles [32].
New York—W. R. Brown [22], E. H. Fahy [23], A D. Cudeu [25], H. F. Snyder [44].
Detroit—J. J. Tompkins [31].

On Saturday automobiles took the party to the Shoreham, at Morris Cove, Connecticut, where dinner was served and the afternoon devoted to athletic sports. The menu card was an artistic piece of work—in keeping with the viands served—embellished with a number of comic sketches, each relating to some one of the guests at the dinner, and having as a general text the motto "By their faults ye shall know them."

IT is stated that whereas the Austrian rubber trade has been brisk during the past year as far as home markets are concerned, the export trade has been extremely difficult, owing to foreign competition. Although a good trade has been done by home manufacturers of tires, the import of goods in this branch amounted within a year to 5,346,000 kroner [= $1,085,238]. England, Russia, Germany and the United States continue to export large quantities of rubber shoes to Austria and Hungary. Austrian firms have now taken up the manufacture of balloon fabrics.

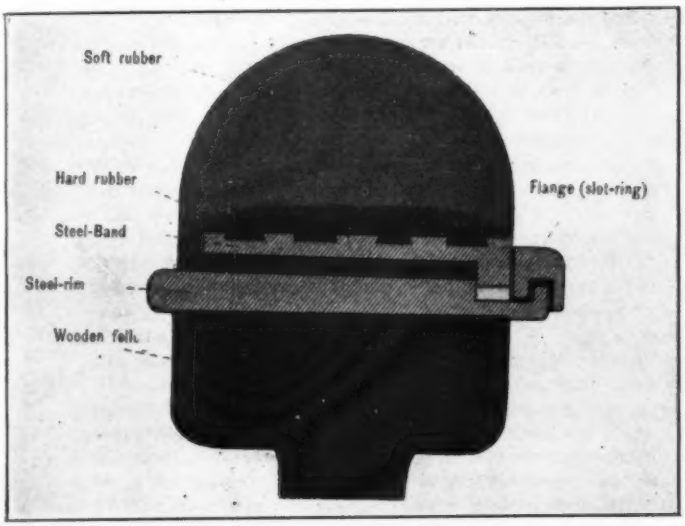


ANNUAL CONFERENCE OF THE HARTFORD RUBBER WORKS CO.

The Rubber Tire Trade.

POLACK TIRES COMING TO AMERICA.

THE manufacture of the Polack truck tire, already important in Germany, the country of its origin, is to be introduced into the United States. For this purpose the Polack Tire Co. has been incorporated under the laws of Maine, the directorate being composed of members of B. Polack Aktiengesellschaft, of Waltershausen, and the Pennsylvania Rubber Co., at the factory of which, at Jeannette, Pennsylvania, the tire will be manufactured under the same processes and methods as in Germany. It is pointed out that this tire can thus be supplied to the American trade at a less cost than hitherto under the high import duty; also that on account of the demand at home the German company find it impossible to supply the export trade. The method of mounting this tire is indicated by the accompanying illustration of one of the types. The officers of the company are Herbert DuPuy, president; A. Hauschild, vice-president and general manager; and H. W. DuPuy, treasurer. The board of directors consists of these officers, and F. Poppe, Max Polack, and C. M. DuPuy. Seneca D. Lewis is secretary. Messrs. Polack, Hauschild and Peppe are connected with the European



Sectional View of Polack Truck Tire.

business; the other directors with the Pennsylvania Rubber Co. The arrangements were made in behalf of the German house by Messrs Hauschild and Poppe, the former of whom will be in permanent charge of the Polack Tyre Co. in America. The principal office will be at 1741 Broadway, New York, which is the Pennsylvania Rubber Co's. branch office.

RUBBER TIRES ON EXHIBITION.

In connection with the thirty-eight annual convention of the Carriage Builders' National Association, held this year in Cincinnati, during the last week in September, occurred the usual exhibition of carriage materials. There was announced in advance an extensixe list of exhibitors, including a number of leading rubber firms, the latter exhibiting in addition to tires, carriage cloth, carriage mats, and other accessories involving the use of rubber.

Mention may be made here also of the exhibition in connection with the thirty-eighth annual meeting of the International Association of Fire Engineers, held recently at Syracuse, N. Y. These exhibitions have long appealed to the interest of fire hose manufacturers, but today the manufacturers of rubber tires also take part, in view of the rapid introduction of rubber tired fire apparatus. Such tires are in wide use on horse drawn apparatus, but the more advanced practice calls for automobile fire engines, of which a number of specimens were shown at Syracuse. Most of the important makers of rubber tires were represented, as well as the well known salesmen of fire hose.

OLNEYVILLE PLANT OF THE REVERE COMPANY.

The Revere Rubber Co. have been making important additions to their premises at Olneyville (near Providence), Rhode Island. As reported already, the Revere company plan the operation in future of the Banigan Rubber plant [see The India Rubber World July 1, 1910—page 365]. They have now purchased the neighboring property known as the Valley Worsted Mill, from which the woolen machinery will be removed, to be replaced with rubber plant. With these changes and additions the Revere company will have at Olneyville one of the largest rubber tire plants in existence, it being understood it is their intention to devote this plant to automobile tires alone.

THE TIRE FABRIC TRADE.

Catlin & Co. (No. 345 Broadway, New York), have accepted the exclusive selling agency of the Wilkinsonville Mills (Wilkinsonville, Massachusetts), manufacturers of tire fabrics. Catlin & Co. have dealt extensively in goods of this class for several years, and are pleased to offer to the tire trade fabrics of the most exact construction. The Wilkinsonville mill is equipped to make tire fabrics of regular and special construction, in all widths and weights. The equipment includes special patented and exclusive automatic loom devices, which will insure positive exactness of width and the elimination of light spots or other unevenness of weight.

CONTINENTAL CAOUTCHOUC CO. IN PARIS.

Two paragraphs appearing recently in the public prints in Paris, France, read in English as follows:

Société du Pneu Continental—146, Avenue Malakoff. In view of the satisfactory progress of its business, this company has resolved to enlarge its manufacturing plant at Clichy, near Paris, and to increase its capital stock from 500,000 francs to 2,000,000 francs.

A company to be known as the Compagnie Continental du Caoutchouc is now bein gorganized with a capital stock of 1,500,000 francs, for the purpose of working the Rouxeville patents.

The India Rubber World is advised by the Continental-Caoutchouc- und Gutta-Percha-Compagnie (Hanover): "Both companies mentioned are the same, and connected in interest with our own company."

STILL THE TIRE MAKERS COME.

The Banner Rubber Co. (St. Louis) have taken on the manufacture of automobile tires. For the benefit of the automobile trade they have opened a tire salesroom at No. 3840 Olive street. They have adopted the name "Autocrat" as their leading brand.

The Mishawaka Woolen Manufacturing Co. (Mishawaka, Indiana), have been experimenting with automobile tires and have turned out a number of samples. They are reported to have been buying additional real estate, and to have put in considerable tire machinery.

BROADWELL MUST BE A GOOD FELLOW.

Following the retirement of Mr. Edward H. Broadwell from the position of vice-president and New York manager of the Fisk Rubber Co. (See The India Rubber World September 1, 1910, page 443), a complimentary banquet was given to him at Churchill's, in New York, on the evening of September 1, attended by nearly 100 of his fellows in the New York trade. Very many telegrams from a distance brought good wishes, and a diamond ring was presented to Mr. Broadwell through President

Wyckoff, of the Motor Racing Association. On leaving the Fisk branch Mr. Broadwell received a handsome present from the sales staff.

On arriving at Detroit, Mich., to take the post of second vice-president and sales manager of the Hudson Motor Car Co., Mr. Broadwell was welcomed with a dinner presided over by the president of the company, Mr. R. D. Chapin, and attended by the heads of the various departments.

Mr. J. B. Cothran, who is well known in the tire trade, has been appointed manager of the New York branch of the Fisk Rubber Co.

NOT SO MANY BICYCLE JOBBERS NOW.

THE new list of the National Association of Bicycle Jobbers contains the names and addresses of 131 concerns dealing with bicycle supplies which are considered to be entitled to the designation "jobber." A number of names formerly on the list have been omitted. The firms mentioned are scattered among 63 cities, in 29 states. Five of the houses are rubber goods jobbing firms. Seven of the total number are located in New York City, seven in Philadelphia, six each in Boston and Syracuse, and five each in Chicago and Los Angeles.

CANADIAN IMPORTS OF CYCLES AND MOTORS.

THE following statistics, for the three months April-June, for three years, are supplied by the Canadian department of trads and commerce:

BICYCLES.

	1908.	1909.	1910.
From Great Britain	$ 3,885	$10,325	$38,927
From United States	11,464	12,921	19,480
From Other Countries	.....	.....	43
Total	$15,349	$23,246	$58,450

AUTOMOBILES.

	1908.	1909.	1910.
From Great Britain	$ 22,558	$ 35,372	$ 65,406
From United States	122,472	412,317	1,273,057
From France	6,875	35,495	35,473
From Other Countries	.....	1,029	5,451
Total	$151,905	$484,213	$1,379,387

TIRE GUARANTEES IN GERMANY.

[FROM THE "GUMMI-ZEITUNG," BERLIN, AUGUST 19.]

THE increasing popularity of rubber tires for horse drawn vehicles, as well as the use of heavy passenger and freight automobiles, naturally opened up a more extensive outlet for solid tires and made them an article of greater importance. It consequently became necessary to meet the many different and frequently utterly unfounded demands of the buyers in regard to the requirements which such tires should answer, by uniting on the terms of the guarantee to be given. In view of this necessity, the German manufacturers have agreed to do all their future business in solid tires exclusively on the basis of the terms jointly decided on. In future, vulcanized-on solid tires will be sold under a guarantee for only one year from the date of delivery at the works and up to a covered driving distance of 15,000 kilometers [=9,321 miles], providing the following provisions are complied with:

1. The tires must be used only for driving on good, public, solidly constructed roads. We are not liable for defects in tires, due to driving on newly graveled or ballasted and unrolled roads, and our obligations contracted under this guarantee shall likewise cease whenever chains or ropes are used on the tires, and whenever rubber tires are used on the driving wheels on one side only—*i. e.*, when the opposite wheel is run without rubber tire, and with an iron tire, for instance.

2. The tires must not be made to carry loads heavier than those for which they are intended in view of their cross section.

3. The number of kilometers covered each day must be accurately ascertained and entered in a book.

4. We are to be notified at once, whenever a tire becomes defective before the distance of 15,000 kilometers has been covered. If the defect is so serious that it can be used no longer on the vehicle, either the tire or the complete wheel must be forwarded to us for inspection.

If a tire should become unfit for use in consequence of faulty manufacturing or defective material, a new tire will be supplied on the basis of the price list in force at the time and of the part of the guaranteed distance which the old tire has failed to cover, or else a credit memo will be issued for the number of kilometers which such tire failed to cover. The defective tires are to become the property of the manufacturers, who shall have the right to decide on indemnifying the purchases in either of the aforesaid ways. Allowances for any number of kilometers less than the guaranteed distance which a tire fails to cover, shall be figured proportionally to the value of either the rubber tire or of the steel band.

In the case of tires for which an allowance must be made in consequence of their failure to cover the guaranteed distance, no settlement shall consequently be made on any basis which may include the inserted steel band, as long as the same still remains fit for use. If vehicles are used for hauling trailers, the guarantee shall be reduced in proportion to the cross sections of the tires used up, etc. No liability will henceforth be assumed in cases where tires are used for vehicles for which they are not adapted in view of their cross section.

These new provisions concerning the manufacturers' guarantee are well adapted for at least improving conditions in the solid tire trade. There can be no doubt that the present abuses could not in any event be allowed to continue, inasmuch as the terms of the guarantee for solid tires have not been stipulated by the manufacturers, but by the purchasers.

The new departure affords, moreover, a further important advantage. It will compel buyers and consumers to refrain from buying and using the tires of small cross section which, while used on account of their cheapness, were absolutely incapable of doing the work and of answering the requirements of the consumer. When seeing carriages and freight automobiles with diminutive tires, it must have been plain to the mind of even unexperienced persons that they could not possibly render good services in the end. All this will be changed now, and the users of the vehicles themselves will get their full share of the benefit, inasmuch as the trouble and expense incident to repairs will be considerably reduced, if not wholly avoided.

In view of the further progress made by the vehicle tire manufacturers in settling the guarantee question as aforesaid, it appears desirable for the automobile pneumatic tire manufacturers likewise to come to an agreement in regard to the guarantee for pneumatic tires for automobiles. Up to the present time, this line of tire manufacturing has failed to meet adequately the requirements of the trade, such as they actually are.

The bicycle pneumatic tire manufacturers did not hesitate to bow to the necessity of an uniform guarantee, and the manufacturers of solid tires have now followed in their footsteps, and it has become a more than urgent necessity to likewise come to an agreement in regard to the guarantee for automobile pneumatic tires and the maximum loads they should be allowed to carry, and to thus place these matters on a suitable standard basis. There appear to be good and sufficient reasons to expect that this matter, which is exceedingly important for all manufacturers of automobile pneumatic tires, will in the more or less near future be settled in a more satisfactory manner.

The Last Goodyear Rubber Inventor.

IT will be news to many people in the trade that up to within the last month there has been living one of the earliest workers in india-rubber—a Goodyear who was in close touch with the discoverer of vulcanization. This was General Ellsworth D. S. Goodyear, who died on September 3, at North Haven, Connecticut, in which town he was born, April 28, 1827.

General Goodyear was the eldest of seven sons of Bela Goodyear, and a descendant in the sixth generation from Stephen Goodyear, first deputy governor of New Hampshire. His great grandfather was a Revolutionary soldier and he and four brothers fought in the Civil War of 1861, one brother, Walstein Goodyear, being killed in battle. Bela Goodyear, here mentioned, was a brother of Amasa, whose son Charles became noted in connection with rubber.

At the age of 16 years the subject of this sketch became employed in the office of a New Haven newspaper. In 1846 he visited New York, with a letter to his cousin, Charles Goodyear, through whose influence he hoped to enter some newspaper office. Instead, however, he entered the employ of the distinguished rubber man, connected with whom were the latter's brothers, Nelson and Henry B. Goodyear. His work in rubber, which covered 14 years, it is not now possible to mention in detail.

THE LATE E. D. S. GOODYEAR.

While residing in Newark, New Jersey, in connection with a rubber factory, Mr. Goodyear had acquired some knowledge of military tactics, and at the outbreak of the Civil War he recruited Company C, of the Tenth Connecticut Volunteers, which he served as captain for three years. Later he was successively promoted to be major and lieutenant colonel, and he was in command of the regiment at the beginning of 1865. He was severely wounded before Petersburg, Virginia, and Congress made him a brevet brigadier general "for especial gallantry in the assault on Fort Gregg." Following the war General Goodyear was for many years connected with the New Haven custom house, after which he remained in the quiet of home, cared for by a loving family.

General Goodyear is mentioned by his family as having been employed in rubber work in factories in Harlem and elsewhere in New York City, as well as Newark and Stapleton, Staten Island. He is referred to as having been "the first superintendent of the Goodyear Hard Rubber Factory on Staten Island. His last employment in the rubber business was with the Beacon Falls (Connecticut) Rubber Co. He resigned his position with them about 1860, owing to ill health." [There was a Beacon Dam Co., at Beacon Falls, succeeded in 1859 by the old American Hard Rubber Co.] He is regarded as having contributed in an important way to several inventions in rubber, including a process for making hollow rubber balls which became standard. By the way, the annual report of the United States patent office for 1854 contains this information:

10,689. Improvement in Processes for Treating India-rubber. E. D. S. Goodyear, Stapleton, New York, assignor to The New York Rubber Co. March 28, 1854.

"The improvement refers to the manufacture of hollow articles from india-rubber, and consists in filling such ware, as balls, etc., to a certain extent, with water, which being, during the process of vulcanization, converted into steam, exercises the necessary inside pressure to impart any desired pattern to the exterior face of the article.

"*Claim.*—The introduction of water or any other liquid into the interior of articles which require expansive force for their perfect formation against the interior surface of molds, said liquid to be converted into steam, substantially as, and for the purposes, specified. [No illustration.]"

It is claimed for General Goodrich that he had a part in the invention of hard rubber, with which he experimented while at Newark. The following memorandum on the subject he left among his papers:

Manufacturers of rubber had long been trying to devise some means by which rubber could be hardened sufficiently to be made useful as a substitute for whalebone. After experimenting with chemicals of one sort and another, I found while studying in Liebig's "Chemistry" the subject of the properties of sulphur that sulphur melted a second time at 310° of heat, and cooled in shellac form.

It occurred to me that here might be the solution of the hard rubber problem, and upon making the suggestion to my employer, Henry B. Goodyear, he arranged with the engineer to have the steam pressure high enough during the night to reach 310°. I prepared six one pound packages of gum, adding to the first two ounces of sulphur, to the second four ounces, and to the others in succession six, eight, ten, and twelve ounces. These mixtures were rolled into sheets about ⅛ inch thick, placed between some bright sheets of tin greased with lard, wrapped in rubber cloth, the whole put into a small steam boiler used for experimental purposes, and subjected to 310° of heat, at which point it was kept for eight hours. When the package was eagerly opened the sheets were found to be of varying degrees of hardness; those of the lesser amounts of sulphur were flexible, while the sheet composed of one pound of gum and eight ounces of sulphur was the best of the lot.

Henry B. Goodyear took it to a pearl button factory near by and had several disks cut out and polished. This was the foundation of the patent, and the great button business as well as the thousand and one other uses to which hard rubber is now applied the world over. Because of the brittleness of the material it failed to be used as a substitute for whalebone.

The date of the experiments here referred to is not stated, but it will be remembered that the original hard rubber patent was granted in 1851 to Nelson Goodyear, with a reissue in 1858 to his brother Henry B., after the death of Nelson.

General Goodyear left other memoranda relative to his work in rubber which THE INDIA RUBBER WORLD hopes to use in time.

A BRITISHER ON AMERICAN MOTORS.

THE important London journal *Autocar* has interviewed Mr. F. R. Sims, of England, on his return from the United States, where he traveled extensively with a view to making himself acquainted with the present condition of the American automobile industry. Mr. Sims was asked:

"Then, the stated outputs which have struck our business people with astonishment are not so astonishing after all?"

"No, certainly not, and the figures have not been overstated. I traveled about 6,000 miles during my stay, and visited nearly every important motor factory in the States."

Questioned in regard to the progress of the manufacture of motor trucks for commercial purposes, Mr. Sims stated that this interest was going ahead very strongly. He thought that 25,000 motor trucks carrying up to five tons would be turned out this year and absorbed by the trade.

THE RUBBER TRADE AT AKRON.

BY A RESIDENT CORRESPONDENT.

AKRON rubber manufacturers see in the very considerable slackening in business that recently led to the reduction of the working forces of several local factories and the shortening of hours of employés in other shops nothing more serious than the usual dullness in the automobile tire market, following a busy spring and summer. The situation is felt more, perhaps, because the season just past has been an unusually busy one.

"We won't begin to stock up until November 1," said Mr. A. H. Marks, vice-president and superintendent of The Diamond Rubber Co. "It isn't good policy to carry tires in stock for a long period. The trade during the summer was more active than customary. That's what is making some folks think the present lull is something more serious. We will keep only enough men at work to take care of the current trade."

Several hundred employés were laid off temporarily at the Diamond. Every shop in the city is doing the same.

Akron manufacturers declare an undercurrent of unrestful comment upon the automobile and the tire situation that has been recently making itself felt locally isn't based upon fact. They are emphatic in their statements that the automobile and the rubber manufacturing industries are built upon solid foundations.

"You can't stop the tire business," said Mr. H. S. Firestone, president of the Firestone Tire and Rubber Co. "It has come to stay. It may vary somewhat according as there are good times or bad times, but in the main there will be a steady, healthy development. In slack times, when business conditions throughout the country are disturbed, fewer tires will be sold than during good times. The automobile owner, for instance, will be more careful of his tires and of his machine than at other times. He will make fewer pleasure trips and the tire industry will feel the difference. Our company is confidently looking forward to a good year of business."

The high price of crude rubber is attributed in some sources as one of the causes for the slowing down in the manufacturing business.

"Akron companies aren't going to stock up on tires and other goods with material costing so much," said Mr. T. C. Marshall, cashier of the Buckeye Rubber Co.

* * *

The development of the Buckeye Rubber Co., one of Akron's newer rubber manufacturing concerns, has been rapid since the fire, which so seriously damaged their plant a little more than a year ago. The plant now consists of five factory buildings. A curing department and a machine room have been built this year, and another for the manufacture of pneumatic tires was finished last spring. The curing room is one of the finest in the country. It is equipped entirely with modern apparatus. There are six presses. The plant is so located that the city water pressure is inadequate for fire protection, and $10,000 has been expended in the installation of a sprinkler system throughout the premises. Water is drawn from the Cuyahoga river. Until two years ago the company's chief product was the Kelly-Springfield solid carriage tire. The manufacture of pneumatic tires was then taken up, and with such splendid results that facilities for this branch of the business were immediately increased. Two hundred men are employed at the plant now, and the daily output is 200 pneumatics, of the regulation clincher type. Inner tubes are also made.

* * *

The capital stock of the Rubber Products Co., of Barberton, near Akron, was increased from $150,000 to $300,000 at a recent meeting of shareholders. Part of the increase will represent a stock dividend out of the surplus earnings, and part of the new stock will be sold *pro rata* to the present owners of the company, of whom there are but few. The money is to be used for improvements, Mr. W. A. Johnston, president and treasurer, said, The Rubber Products Co. make druggists' sundries and mechanical goods.

* * *

Mechanical equipment continues to be contributed by manufacturers of machinery and by the leading rubber goods firms to Buchtel College, for the benefit of the students who have taken up the new course in rubber chemistry. Some of the rubber manufacturing companies have offered to coöperate with the faculty in every way possible to render the new course of benefit to the students. Dr. Charles M. Knight, professor of chemistry, who has charge of the rubber class, is assisted by Hazzleton Simmons, a Buchtel graduate in chemistry, who has taken a doctor's degree at the University of Pennsylvania.

* * *

The American Tire and Rubber Co., recently incorporated, purpose the manufacture of automobile tires, inner tubes, and solid tires; also the reclaiming of rubber by a new process, for which much is claimed. Frank L. Kryder, one of the local incorporators, was for several years assistant treasurer of the Peoria Rubber and Manufacturing Co., the factory of which was closed after the company passed into the hands of the Rubber Goods Manufacturing Co. The new company have not decided whether to locate in Akron, though several sites in this city are under consideration.

* * *

A meeting of the shareholders of the Royal Rubber Co. has been called for October 22, to take action upon a proposal to increase the capital stock from $50,000 to $200,000. Extension additions are being made to the company's plant. O. C. Alling has resigned as president and William M. Bleeker, of Mansfield, Ohio, was elected to succeed him.

* * *

E. A. Kranich, superintendent of the tire department of L. & M. Rubber Co., (Carrollton, Ohio), has been in Akron recently buying tire making equipment. This company succeeded the Mitzel Rubber Co., and Mr. Kranich declares it to be in a thriving condition. Harvey Miller, an Akron man, is superintendent of the druggists' sundries department.

* * *

Mr. Will Christy, vice president of the Firestone Tire and Rubber Co., has authorized the publication of a notice of withdrawal from participation in forming the proposed Portage Rubber Co., of which mention was made in The India Rubber World, September 1, 1910 (page 448). It is stated that more than half of the $1,000,000 capital desired has been subscribed.

* * *

The Diamond Rubber Co. have opened a branch in Paris, under the management of Keith L. Goode, an American who has resided for 15 years in France. He is a brother of the branch manager in Paris of the Packard Motor Car Co.

* * *

J. W. Kelley, who started as a clerk in The B. F. Goodrich Co. offices, at a very modest salary, when he came to Akron not so many years ago from the east, has been entertaining Akron people recently at his splendid new home at West Farmington, Massachusetts. As a clerk, all his spare earnings were invested in rubber stock. He ventured to borrow money, and it, too, went for stock. Four years ago he retired from active business and traveled extensively abroad with his family for two years. He is one of the many men whose fortunes have been made in Akron's rubber factories.

* * *

During the latter part of September the yearly conference of the officers, branch managers, and salesmen of the Firestone Tire and Rubber Co. took place in this city. The branch managers in attendance were D. C. Swander, New York; T. J. Glenn, Boston; W. R. Walton, Philadelphia; F. H. Martin, Chicago; C. E. Jackson, Pittsburg; W. A. Harshaw, Cleveland; J. V. Mowe, Detroit; W. F. West, St. Louis; E. L. Campion, Seattle; and C. C. Eichel-

berger, San Francisco. General agents from other important cities were in attendance. The conference concluded on the evening of September 23 with a dinner at the Portage Country Club, presided over by Mr. Harvey S. Firestone, president of the company, and at which 90 covers were laid, representatives of several other Akron companies being among the guests. During the evening a lecture on the Amazon rubber region was delivered by the Editor of THE INDIA RUBBER WORLD.

* * *

THE shareholders of the Swinehart Tire and Rubber Co. met on September 22. The directors chosen were Frank B. Theiss, William Byrider, R. A. May, Joseph Dangel, J. A. Swinehart, W. W. Wuchter, and August Blessman, the latter succeeding Frank R. Talbot. The officers were reëlected as follows:

President and general manager—W. W. WUCHTER.
Vice president—JAMES A. SWINEHART.
Secretary—C. O. BAUGHMAN.
Treasurer—R. A. MAY.

The reports read showed the concern to be in excellent financial condition. The sales during the year were larger than during the year preceding. It was mentioned that the company had obtained the largest truck tire contract ever taken to equip commercial vehicles.

* * *

IT is reported that United States Senator Charles Dick, who resides in Akron, and is a director in one of the larger local rubber companies, will introduce at the next session of Congress a bill to establish a custom house in this city. Such an establishment would result in lower fees for shippers. There are considerable exports from Akron of rubber goods and machinery.

* * *

A NEW aeroplane tire offered on the market by The Diamond Rubber Co. is of the single tube type, with a chrome leather tread, intended to resist the action of the spoon brake, like the old fashioned bicycle brake, that aviators use.

* * *

MR. WEB BROWN, formerly a newspaper cartoonist in Akron and later connected with the Youngstown *Telegram*, has become advertising manager of The Republic Rubber Co., of Youngstown.

THE RUBBER TRADE IN SAN FRANCISCO.

BY A RESIDENT CORRESPONDENT.

ANOTHER month has passed, showing a gradual and general improvement in all lines of industries in San Francisco, and, speaking generally of the state at large, conditions now are very prosperous. As for the rubber business in particular, it is difficult to detect any material change over last month, business with the average establishments being fairly good, but not at all rushing. Like everybody else, these merchants are hopefully anticipating that this fall and winter will develop into quite an active trade. The times are ripe for better business, and there is every reason to believe that the rubber mechanical goods' business, as well as tire and druggists' sundries, will improve materially.

* * *

A FORTNIGHT ago the state legislature met in special session and passed a constitutional amendment to be voted on by the people at the November election, authorizing the raising of $5,000,000 by state taxation, and empowering the city and county of San Francisco to raise a separate $5,000,000 by the sale of bonds, the object being to insure funds sufficient to hold a World's Fair in San Francisco in 1915, in honor of the Panama canal, and thereby induce Congress and the federal government to give the exposition its stamp of approval. San Francisco has already raised $7,500,000 by subscription, so that $16,500,000 will be available—a a sum greater than has ever before been raised for such a purpose. The fair will mean the spending of some $50,000,000 additional in San Francisco during the next five years, and it is needless to say that this is not only going to make active times, but it is going to be a great thing for San Francisco by way of helping to place the city back on its feet after the $300,000,000 loss sustained by the fire of 1906.

* * *

MR. R. H. PEASE, president of the Goodyear Rubber Co., states that business is moving along in fine fashion, and is showing up much better than last year. The recent rains throughout the state were premature, but fortunately were not lasting. Rubber boots and shoes should be in the hands of the customers before the rains set in. "We are glad to see the price of rubber getting down somewhat," he said, "as it has been a great task for all of the manufacturers to know what to do about making prices when rubber for a while was going up. We are living in great hopes that rubber will stand at $1.90 or less a pound until the prices of goods get more or less settled. We anticipate that from October on we will have one of the best years we have ever had on the coast, as all we need is rain in the late fall, which is worth much more than rain from January to May. Rubber business on the Pacific coast is a great speculation, because we have to anticipate what is ahead for weather. If we figure the rains at the right time we sell all of our output, but if not it is very serious, because we have to carry stocks over for another year." Mr. Pease has just returned from a very pleasant trip to Los Angeles in an automobile.

* * *

THE eighth annual convention of fire chiefs of the Pacific coast was held at Stockton on September 6-7. It was one of the most largely attended conventions ever held, and many good papers were read. Motor driven apparatus was generally agreed upon as being the proper thing. Some of the rubber fraternity who were there were W. A. Daggett, Pacific coast manager of the Eureka Fire Hose Manufacturing Co., and Mr. Barton, with the same company; J. H. Phillips, manager of the Seattle branch of the Gorham Rubber Co., also, C. A. Taber with the Gorham company; and Fred A. Wood and A. J. Coffee, representing the Gamewell fire alarm system. At the fire chiefs' banquet Mr. Daggett gave a toast to "My Old Home City" and Mr. Phillips gave a toast "To the Ladies." The Eureka company had a big exhibit there, and some of the other firms likewise had displays of their lines.

* * *

CAPTAIN W. H. GRAY, who has been with the Diamond Rubber Co. for two years covering the northwestern territory, has been placed in charge of a branch store which this firm has just opened up in Portland. This move was considered wise owing to the great success which their Seattle branch has met with. Since putting in that branch their business there has trebled. F. O. Nelson, manager of the Los Angeles branch, writes that he is meeting with excellent results in specializing on motorcycle tires, as that section of the country is a great motorcycle center. After the return of General Manager C. E. Mathewson from his hunting trip in northern California he took a business trip to the new branch at Portland, and is back again in San Francisco. Lee Ijams and J. W. Whitehead returned to their duties after an interesting 1,000 mile hunting trip by automobile.

* * *

MR. W. D. SQUIRES, of Squires & Byrne Co., rubber and druggists' sundries, No. 565 Mission street, is just back from a five weeks' eastern trip. He has added to the territory of the Seamless Rubber Co. (New Haven, Connecticut,) now having the entire Pacific coast. He also secured the northern territory in addition to the local territory for S. H. Wetmore lines, and has secured for California Daniel's P. P. P. Packing and the Quaker City Rubber Co.'s full line of mechanical rubber goods. He states that business is moving along in fine style. It was not long ago when they started in with three men, and now they have nine.

* * *

MR. THOMAS J. MCELROY, JR., manager of the Gandy Belting Co. (Baltimore), recently visited San Francisco and the Pacific

coast, and in making a comparison of business conditions said that trade activity is as good on the coast, as far as he can judge, as they are in the Eastern states. He reports a growing trade on his line throughout the Pacific coast.

* * *

Mr. J. E. French, manager of the local branch of the Pennsylvania Rubber Co., is now making his northern trip. F. H. Hearsch, traveling man, has just returned from a trip for the firm and states that he finds conditions looking very well through all the important business sections along the coast.

The Crandall Rubber & Supply Co., on California street, and the Phoenix Rubber Co., on First street, have discontinued negotiations toward effecting a consolidation.

The Phoenix Rubber Co. report a very favorable business, especially at their branch store in Los Angeles.

Henry Norton, manager of the American Rubber Manufacturing Co., is out of the hospital, well and back to work again.

The Orca Manufacturing Co., which bought out the Young Sanitary Co., have taken offices in the Hooker & Lent building. Manager U. R. Grant is in charge and he states that they will soon lease considerable more space for use as sample rooms.

Mr. Frank N. Childen, the owner of a large rubber plantation at Rhodesia, South Africa, who was killed last May by a wounded wild elephant, while on a hunting trip, left real estate in San Francisco valued at several thousand dollars, which has been distributed to his daughter, Mrs. E. J. Randall, this city.

The Pacific Coast Rubber Manufacturers' Association gave a banquet at the Palace Hotel on Thursday, September 22. After the banquet the members held the annual election of officers.

THE RUBBER TRADE IN CINCINNATI.

BY A RESIDENT CORRESPONDENT.

THE past month has marked the opening in this city of two new branch houses of two leading rubber factories, and with the opening of these two branches Cincinnati is becoming recognized as the "Gateway to the South" by the rubber industry.

The B. F. Goodrich Co. opened its doors of its new Cincinnati branch on September 15. This company, following out its progressive plan, has long looked upon the Queen City as the logical point as a distribution point for the South. About three months ago the company entered into a long lease for a site and immediately had plans prepared for an office, salesroom and small factory building. The building of the structure was hurried and the past month it has been completed sufficiently for occupancy. The building is a two story structure and basement, located at No. 1122 Race street. The first floor is to be used as an office and salesroom, while the second floor is to be a complete factory in which is equipped the largest vulcanizing plant in Cincinnati. The basement is used as a stock room. Mr. E. S. Blake, who has represented the company on the road in the Michigan territory, has been appointed manager of the new branch.

Following close on the announcement of the Goodrich company that it would put up its own building, The Diamond Rubber Co. sought a good location, and secured a lease on a site at No. 809 Race street. The company has had erected a two story building of unusual architectural beauty, and on September 16 took possession. The Diamond has for some time maintained two offices in this city—one where solid rubber tires and rubber sundries were handled, while at the other pneumatic tires were handled. The two offices have been combined, with Mr. E. B. Tozier manager in charge. The building is finished in an elaborate manner, and all furnishings are in harmony with the beautiful new structure. The Diamond has employed 12 salesmen who operate from this point. This company will not operate any mechanical end of the business in its new premises, but will send all of its work to the factory at Akron.

Besides these two companies, the Goodyear Tire and Rubber Co. and the Firestone Tire and Rubber Co. maintain local branches in Cincinnati.

THE RUBBER TRADE IN CHICAGO.

BY A RESIDENT CORRESPONDENT.

THE rubber trade in Chicago is showing signs of revival Business fell off during the early part of September, but the last week has seen a flood of small orders booked by the local houses. Large orders are infrequent, but the large number of smaller sales will make a good average for the month. The local distributors take these small orders to indicate a healthy condition of trade, and look for a material increase during October.

The distributors of rubber druggists' sundries state that the condition of that branch of the trade has been in consonance with the general reports of trade by the drug houses of the city, which have universally defined it as dull. With the approach of the holiday season, and the early change from summer temperature to the colder autumnal season, a general revival of trade is indicated for the retail druggists, with consequent stimulation of the rubber sundries trade; sales of rubber sundries, it is expected, will therefore be correspondingly large.

With their season just opening the rubber shoe men are especially enthusiastic. With few exceptions mill and factory orders have been delaped. Advices, however, have been received of early shipments and with augmented stocks the anticipated brisk trade of the fall months will be fully taken care of.

* * *

Mr. W. H. Simmons, secretary and manager of the Chicago office of W. D. Allen Manufacturing Co., has been absent for a number of weeks on a trade tour of the East.

Mr. M. F. Paterson, manager of the local office of the Beacon Falls Rubber Co., is visiting the factory.

Mr. A. W. Smith, Western manager of the Goodyear's India Rubber Glove Manufacturing Co., is expected home from his eastern trip next week. He has been on a combination business and pleasure trip of four weeks, two of which were spent in the Berkshire hills.

Mr. W. A. Heppler, of W. A. Heppler & Co., spent several days recently in St. Paul on business for his company.

"ODD SIZED" MOTOR TIRES.

IN a timely editorial *The Horeless Age* points out the unnecessary number of "odd sized" tires produced. The original idea was to sell such tires to owners of cars whose tires were not large enough in cross section to give satisfactory service. Some of these met with such enthusiastic reception that other odd sizes have been added, until now the variety is almost endless. The writer adds:

"If these later sizes are needed it would seem that the need is a reflection upon tire manufacturers, for there has been ample knowledge during the past few years of what loads and speeds tires are serviceable under. So if any manufacturer has allowed his tires to be overloaded he has been guilty of a very shortsighted policy. And such a policy would be the less understandable, since there has been ample business to select from."

One criticism of the new practice is that the more of these odd sizes are brought out, the larger will be the investment necessary for tire branches and repair depots, and an ultimate decrease in tire profits."

Announcement is made by Messrs. Tyson Brothers & Richardson, Inc. (Stamford, Connecticut), that from October 1 the firm will be known as Tyson Brothers, Inc. Also, that on account of its having become necessary to acquire a larger factory for their rubber substitutes, they are removing to Carteret, New Jersey, where hereafter their main offices will be located.

News of the American Rubber Trade

THE APSLEY'S SILVER ANNIVERSARY.

THE Apsley Rubber Co. (Hudson, Massachusetts), issued, under date of September 1, a handsomely engraved souvenir of their quarterly centennary, of which the cover is labeled:

1885 1910
SILVER ANNIVERSARY
of
APSLEY RUBBER COMPANY
Hudson, Massachusetts

The marked success of the company is attributed to the adoption at the beginning of the principle, "The production of merchandise of high quality and honorable dealings in all business relation," to which the entire staff have proved loyal. The souvenir contains views of the original plant of the Apsley company, and of the present plant, reproductions of which appear on this page.

The last INDIA RUBBER WORLD, (page 445), mentioned the distribution of presents by President Apsley to all employés at the factory at Hudson. More recently, on a visit to Chicago, Mr. Apsley made similar presents to the staff of the Rubber Manufacturing and Distributing Co., of which he is also president.

FIRE IN A RUBBER FACTORY.

AT the plant of the Rubber and Celluloid Harness Trimming Co., (Newark, New Jersey), fire broke out on the afternoon of September 11, from some cause yet unknown, causing a loss of from $200,000 to $250,000. The fire began in the machine building and extending to adjacent structures stored with materials. It did not reach the department in which the rubber harness trimmings are manufactured, so that with the adjustment of losses the company were enabled to proceed at once to fill orders in their harness department. Some parts of the building in which their Rubberset brushes are manufactured were damaged, making necessary a delay of a week or ten days in the work of this department. The loss is reported to have been mainly on new machinery lately installed by the company.

EXTENSION OF THE EMPIRE RUBBER FACTORY.

THE Empire Rubber Manufacturing Co. (Trenton, New Jersey), in view of the large increase in their business this year, have been compelled to add still further to their factory. They are making a three-story addition to their main mill room building, 40 x 70 feet; putting up a new tire shipping and stock room, three stories, 40 x 80 feet; and erecting a garage for the accommodation of their patrons and the cars used by their employés. Besides, they are adding a second story to their office building, 40 x 100 feet, the entire second floor to be devoted to the accounting department.

STEEL CALENDER STOCK SHELLS.

THE demand for "Universal" steel calendar stock shells [see THE INDIA RUBBER WORLD, June 1, 1910—page 331] is reported to be growing so rapidly that the maker, W. F. Gammeter, of Cadiz, Ohio, has been compelled to double his floor space, and is still crowded for room. More than 8,000 of these shells have been installed in rubber factories since March 1 last.

JAMES BOYD & BROTHER—REMOVAL.

ANNOUNCEMENT is made by James Boyd & Brother, Inc., (Philadelphia), of the removal of their sales department to Twenty-fifth and Wharton streets, where it will be combined under one roof with the factory and warehouse. It is anticipated that through thus consolidating their organization they will be better equipped to serve their customers. The firm will continue to represent, as selling agents, the Electric Hose and Rubber Co., and the Eureka Fire Hose Manufacturing Co., and carry a complete stock of fire protection equipment and mechanical rubber goods. Their factory is devoted to fire extinguishing apparatus.

COMBINATION IN THE RETAIL DRUG TRADE.

THE rubber druggists' sundries trade is likely to be very much interested ultimately in the combination which is taking place in the retail drug interest in New York City. A new corporation has been formed, under the laws of New York, under the style Riker-Hegeman Co., with an authorized capital of $15,000,000, of which $5,000,000 is in preferred shares. The businesses combined are those of William B. Riker & Sons Co., dating from 1846, and Hegeman & Co., operated under the present name since 1875, but for many years earlier under other names. The combined business will control 58 retail drug stores, a few of which are located outside of New York. The annual sales are estimated at $9,000,000, which covers a very great distribution of goods at retail. The Riker stores particularly have always paid close attention to their rubber sundries department, and have been large sellers of this class of goods. It is to be presumed that the same policy will be adhered to by the enlarged company.

OFFICERS OF THE H. O. CANFIELD CO.

THE list of officers of The H. O. Canfield Co., manufacturers of mechanical rubber goods at Bridgeport, Connecticut, is at present constituted as follows:

President—A. H. CANFIELD [former vice president; succeeds the late H. O. Canfield.]
Vice president and treasurer—G. E. MELIUS [formerly treasurer only.]
Secretary—H. B. CANFIELD.

The above, with T. W. Bassett, of New York, and John S. Pullman, of Bridgeport, constitute the board of directors.

NORTH BRITISH RUBBER CO. IN CANADA.

THROUGH a regretted oversight within the offices of THE INDIA RUBBER WORLD, the advertisement of The North British Rubber Co., Limited, has been printed recently with an incomplete address for their Toronto branch. It should read: 43, Colborne street, Toronto, Ontario, Canada.

TIRE TRADE NEWS.

THE Fisk Rubber Co. (Chicopee Falls, Massachusetts), have opened branches in Providence, Rhode Island; Rochester, New York; and Oakland, California. The Fisk company now have 20 branches, scattered among 14 states.

The C. A. Shaler Co. (Waupun, Wisconsin), manufacturers of portable electrical vulcanizers for tires, have acquired the patent rights and business of the Stitch-in-Time Vulcanizing Co. (Topeka, Kansas), manufacturers of a gasolene heated vulcanizer of the portable type.

Mr. D. B. Nally, long connected with the tire trade in New York and the adjacent territory, has joined the selling forces of the Pennsylvania Rubber Co. (Jeannette, Pa.)

Mr. Wiley F. West has been appointed manager of the St. Louis branch of The Firestone Tire and Rubber Co. (Akron, Ohio). He comes from Atlanta, Georgia, where he secured valuable experience while managing the branch store of another tire company.

Owing to important developments with the deal for the American rights for the pfleumatic tire filler, *The India-Rubber Journal* notes the departure for the United States of Mr. Bertram E. Foster. It is understood that an important American company have agreed to take up the Pneumatic invention, and to establish factories for producing the material.

NEW INCORPORATIONS.

ELECTRO-CHEMICAL Rubber and Manufacturing Co., August 6, 1910, under the laws of New Jersey; authorized capital $200,000. Incorporators Leo Daft, Rutherford, N. J., Aubrey H. Martin, Short Hills, N. J., Charles E. Haydock, No. 26 Broad street, New York, and William M. Clark, No. 52 William street, New York. Formed to develop commercially a process for the attachment of rubber to metals, invented by Leo Daft. The effect is secured by the electro deposition of a special alloy having a strong affinity for rubber during and after the process of vulcanization.

S. & S. Manufacturing Co., August 23, 1910, under the laws of Illinois; capital $35,000. Incorporators: Clarence B. Shaffner, No. 1508 Ashland boulevard, Chicago, Benjamin M. Schaffner, and George Hadjieh.

Badger Tire Repair Co., June 27, 1910, under the laws of Wisconsin; capital $5,000. Incorporators: Burt A. Massee, W. L. Rumbach, and William A. McMillan. Location: Milwaukee, Wis.

Nonskid Leather Cover Tire Co., August 26, 1910, under the laws of California; capital $10,000. Incorporators: E. S. Lack, Los Angeles; Fred Stange and Zella N. Stange, El Monte, California. Location: Los Angeles.

Peerless Tire Co., September 3, 1910, under the laws of New Jersey; outhorized capital $25,000. Incorporators: Stewart Browne, No. 1 West Eighty-first street, New York; George Bazin, No. 3609 Broadway, New York; and Luciano L. Rubiro, Hackensack, N. J.

The Interchangeable Rubber Heel Co., August 4, 1910, under the laws of Massachusetts; authorized capital $50,000. Incorporators: Oscar A. Campbell, No. 140 Eaton street, Brockton; George L. Adams, No. 50 Holman street, Attleboro; and Joseph E. Worcester, No. 1870 Beacon street, Brookline—all in Massachusetts.

Barlow and Burns Elastic Webbing Co., July 26, 1910, under the laws of New Jersey; authorized capital $25,000. Incorporators: Richard Barlow, Thomas P. Burns, and George H. Barlow—all of Trenton, N. J.

Easthampton Elastic Webbing Co., August 1, 1910, under the laws of Massachusetts; authorized capital $25,000. Incorporators: Hermann Eger, Albert M. Kuhn, and Ernest F. Kuhnert, all of Easthampton, Mass.

Lincoln Webbing Co., August 23, 1910, under the laws of Massachusetts; capital $25,000. Incorporators: Arthur W. Smith, Brockton; George A. Lapham, of New Dorchester; and George G. Allen, Arlington—all in Massachusetts.

Schaefer Rubber Co., incorporated in Ohio, in 1906, with an authorized capital of $50,000, was admitted to do business in Michigan in August 5, 1910. The principal office it at No. 120 East Fourth street, Cincinnati, Ohio.

Walk Auto Tire So., September 9, 1910, under the laws of Delaware; authorized capital $125,000. Incorporators: F. R. Hansell, Philadelphia; George H. B. Martin and S. C. Seymour, Camden, New Jersey.

Cuyahoga Rubber Co., September 1, 1910, under the laws of Ohio; capital $10,000. Incorporators: W. E. Young, R. L. Kryder, Minner Rigle, Marion Goay, and G. B. Motz.

A. Hoch Rubber Co., September 10, 1910, under the laws of New Jersey; authorized capital $100,000. Incorporators: Adam Hoch, Charles M. Adair, Jacob Hoch—all of Newark, New Jersey—and Eugene S. Robinson, St. George, New York.

Polack Tyre Co., September 9, 1910, under the laws of Maine; capital $500,000. Incorporators: E. Maynard Thompson, L. H. Stevens, C. C. Ballard, F. J. C. Little, B. J. Potter, and I. S. Kearney—all of Augusta, Maine. Further details appear on another page of this issue.

Fabric Rubberizing Co., July 8, 1910, under the laws of New York; capital $10,000. Incorporators: James S. Donough, Francis X. Donough—both of No. 80 Wall street, New York; Edward L. White, and Russell B. Reid—both of Englewood, New Jersey.

NEW INCORPORATIONS.

AMERICAN Tire and Rubber Co., September 2, 1910, under the laws of Ohio; capital $200,000. Incorporators: Frank L. Kryder, Adam Duncan, Gilbert C. Waltz, Harvey Musser, and J. R. Huffman. Further details appear in the Akron correspondence this month.

A certificate was filed August 19, 1910, with the secretary of state of Illinois, changing the name of the Peerless Tire Co. to that of Peerless Tire and Rubber Co. At the same time the capital stock was increased from $2,000 to $250,000, and the number of directors increased from three to five, and the scope of the corporation enlarged. Principal office: No. 1610 Michigan avenue, Chicago.

William Killion & Sons Co., June 16, 1910, under the laws of Massachusetts; authorized capital, $50,000. Incorporators; William Killion, George W. Killion, and Homer G. Killion, all of Roxbury, Massachusetts. The Messrs. Killion control a patented rubber horse shoe pad.

UNITED STATES RUBBER CO.'S ISSUES.

TRANSACTIONS on the New York Stock Exchange for four weeks, ending September 24:

COMMON STOCK, $25,000,000.

[The treasury of a subsidiary company holds $1,344,000.]

Last Dividend, April 30, 1900—1%.

Week	September 3	Sales	1,620	shares	High 35¾	Low	33⅝
Week	September 10	Sales	1,100	shares	High 34⅜	Low	33¾
Week	September 17	Sales	1,300	shares	High 35	Low	33½
Week	September 24	Sales	700	shares	High 34¾	Low	34

For the year—High, 52¼, Jan. 3; Low, 27, July 26.
Last year—High, 57⅝, ———; Low, 27.

FIRST PREFERRED STOCK, $39,824,400.

Last Dividend, April 30, 1910—2½.

Week	September 3	Sales	145	shares	High 105	Low	105
Week	September 10	Sales	400	shares	High 106¾	Low	105⅝
Week	September 17	Sales	200	shares	High 107	Low	106⅞
Week	September 24	Sales	200	shares	High 107½	Low	107¼

For the year—High, 116½, Jan. 10; Low, 99, July 26.
Last year—High, 123½, ———; Low, 98.

SECOND PREFERRED STOCK, $9,965,000.

Last Dividend, April 30, 1910—1½%.

Week	September 3	Sales	.....	shares	High	Low	.....
Week	September 10	Sales	100	shares	High 65	Low	65
Week	September 17	Sales	.....	shares	High	Low	.....
Week	September 24	Sales	.....	shares	High	Low	.....

For the year—High, 84, Jan. 3; Low, 59½, July 27.
Last Year—High, 89½; Low, 67¼.

SIX PER CENT. TRUST GOLD BONDS, $19,500,000.

Week	September 3	Sales	17	bonds	High 102¾	Low	102¼
Week	September 10	Sales	8	bonds	High 102½	Low	102¼
Week	September 17	Sales	94	bonds	High 102½	Low	102¼
Week	September 24	Sales	26	bonds	High 102¾	Low	102½

For the year—High, 104½, Jan. 15; Low, 101¼, July 30.
Last year—High, 106, ———; Low, 102¼.

TRADE NEWS NOTES.

THERE is a growing tendency in the American rubber trade to use asbestos, following the example of the German rubber manufacturers, most of whom in the mechanical lines regularly advertise asbestos products. This paragraph is suggested by the appearance in the latest mechanical goods catalogue of the National India Rubber Co. (Bristol, Rhode Island) of a number of items of packing and gaskets made of rubber and asbestos combined.

The Harmer Rubber Reclaiming Works, established recently at East Millstone, New Jersey, are reported to be running full time and in receipt of good orders.

Mr. Frank D. Balderston, manager of tennis sales of the United States Rubber Co., with headquarters in Boston, started on his regular fall trip visiting the trade as soon as the new tennis goods lists—as shown on another page of this paper—were distributed.

The manufacturers of the Bl lell system of vacuum cleaners, while commending the quality ubber hose used—and by the way it is reinforced by spring wire—say: "Metallic hose is recommended for school house work and is most acceptable for use in residences. This is very much lighter and is more flexible than the rubber hose."

KELLY-RACINE RUBBER CO.

THE management of this company, whose plant is at Racine, Wisconsin, has been referred to already in THE INDIA RUBBER WORLD, is calculated to have a daily capacity of 1,000 automobile tires, 3,000 bicycle tires, and 1,500 motorcycle tires, in addition to inner tubes and solid tires. The company is capitalized at $500,000, of which THE INDIA RUBBER WORLD is advised that $422,000 has been subscribed by substantial local business men. The officers of the company are: Charles F. U. Kelly, president; Frank L. Mitchell, vice president; Stuart Webster, treasurer; John H. Dwight, secretary; and William Seward, general factory manager.

WOVEN STEEL HOSE AND RUBBER CO.

ONE of the most interesting and attractive catalogues in connection with rubber hose recently issued is that of the Woven Steel Hose and Rubber Co. (Trenton, New Jersey), who are manufacturers of a high grade of rubber hose, armored with woven steel under a patented process which has met with much favor in the trade. The same company also offers an attractive list of steam, hydraulic, ammonia, and air packings. [5½" x 8". 40 pages.]

A NEW FIRM IN CRUDE RUBBER.

A COPARTNERSHIP has been formed, as from September 12, under the name of Schaumann, Talcott & Patteson, to conduct a brokerage business in foreign and domestic raw products, and especially South and Central American and Mexican rubbers, and balata. The members of the firm are Gustave Schaumann, Frederick L. Talcott, Jr., and Thomas A. Patteson, all of whom have had business relations for several years past with some of the largest import houses in New York. The location of the firm is No. 61 Beekman street, New York.

RUBBER SUBSTITUTE TRADE.

WILLIAM H. SCHEEL (No. 159 Maiden lane, New York), in addition to 25 or more grades of rubber substitutes, is importing German barytes, English terra alba, Italian talc, and French oxide of zinc; also powdered and flake litharge, as well as domestic earths, clays, and fillers. Mr. Scheel is the virtual owner of Tripolite lakes in Nova Scotia, and can supply fossil flour in any quantities desired.

FIRE HOSE FOR NEW YORK CITY.

THE fire commissioner of New York city advertised for sealed bids for furnishing and delivering fire hose for his department, to be opened on September 15, as follows:

For the boroughs of Brooklyn and Queens: 30,000 feet of 2½ inch rubber hose.

For the boroughs of Manhattan, The Bronx, and Richmond: 20,000 feet of 2½ inch rubber hose.

For the boroughs last named: 10,000 feet of 3 inch rubber hose.

Contracts for the whole amount of hose called for have been awarded to The B. F. Goodrich Co. of New York at $1.18 per foot for the 2½ inch and $1.66 per foot for the 3 inch hose. The New York fire department advertised for the same amount of hose, inviting bids to be opened on June 16 [see THE INDIA RUBBER WORLD August 1, 1910—page 401], when the only bidder was the H. W. Johns-Manville Co. The fire department advised THE INDIA RUBBER WORLD that the company named, "failing to comply with the specifications required, their proposal was rejected." The specifications under which the new award has been made differ in several respects from those advertised on June 16.

NEW FACTORY AT WEBSTER.

THE transfer is reported at Webster, Massachusetts, of a factory building and adjoining land to the Webster Felt and Rubber Co., mentioned in the last INDIA RUBBER WORLD (page 444). Henry C. Richardson, the inventor of a combined felt and rubber boot is stated to have transferred to the company $17,000 worth of machinery owned by him in Canada, and the manufacture of these boots is locally looked for as soon as the machinery can be moved. Arthur H. Racicot is treasurer of the corporation.

TRADE NEWS NOTES.

THE Diamond Rubber Co. (Akron, Ohio) are mentioned as having made a single shipment of over 125,000 feet of their rubber covered wire and cable for the equipment of the new $500,000 plant of the Marathon Paper Co., at Rothschilds, Wisconsin—the first paper mill in the United States erected for electrical operation solely.

Among the visitors at Colombo, Ceylon, during the past months was mentioned Lieutenant T. G. R. Pierson, of Mansfield, Ohio, who is studying rubber cultivation preparatory to planting in the Philippine islands.

The suit brought by the Buffalo Specialty Co. (Buffalo, New York), against Patrick F. Peters (Natick, Massachusetts), in the United States circuit court for the district of Massachusetts, alleging infringement of the patent granted to Charles E. Duryea for the tire puncture filling compound "Neverleak," has resulted in a decision in favor of the plaintiffs.

The Westinghouse Electric and Manufacturing Co. have declared back dividends on the preferred stock, amounting to 8¾ per cent., payable in installments up to April 15 next. The regular quarterly dividend of 1¾ per cent. is payable October 15.

Morgan & Wright (Detroit, Michigan), have opened a branch in Denver, Colorado, at No. 217 Sixteenth street, for the sale of their tires in that territory, in charge of James Maginnis and Henry Althens.

The Fisk Rubber Co. of Texas has been organized by local capital at San Antonio, to handle Fisk tires in that state. In addition to headquarters in San Antonio, distributing depots will be maintained in Dallas and Houston.

The eminent French traveler and scientist, Auguste Chevalier, whose contributions to the world's knowledge of African rubbers have been so important, is reported to have nearly lost his life recently from a snake bite. He was saved when in a desperate condition by treatment with the Calmetta serum.

The International Aviation Meet, to be held October 22-30, at Belmond Park, Long Island, New York, promises to be the most spectacular and interesting aero meet ever held. It is to be under the auspices of the Aero Club of America, which is the aviation section of the Automobile Club of America. It is expected that about 30 aviators will take part, of which at least a dozen will come from Europe. The International Trophy event, for the Gordon-Bennett cup, will occur on October 29.

The B. F. Goodrich Co. (Akron, Ohio), state that they are manufacturing garden hose at the rate of 6,000,000 per annum, and other types of hose in proportion. They devote exclusively to their hose manufacture a five story building 400 x 60 feet.

About 100 members of the force of the Fish Rubber Co. (Chicopee Falls, Massachusetts), had an outing on September 10, a principal feature of which was a clambake prepared by some of the women employés of the company

The Firestone Tire and Rubber Co. (Akron, Ohio), have removed their branch in Los Angeles, California, to a handsome new building erected for them in that city at No. 1239 South Olive street. Mr. J. F. Lemon is manager in charge.

Mr. Burton R. Parker, who has assumed the duties of advertising manager of the Willyss-Overland Co., automobile manufacturers, at Toledo, Ohio, was connected some time in a similar position with the Hartford Rubber Works Co., and later with the Michelin Tire Co.

DIVIDENDS DECLARED.

THE directors of The Rubber Goods Manufacturing Co. declared the regular quarterly dividend of 1¾ per cent. on the preferred stock, payable September 15 to holders of record September 1.

The Walpole Rubber Co. (Walpole, Massachusetts), have declared the regular quarterly dividends of 1 per cent. on the common stock and 1¾ per cent. on the preferred stock, payable October 15 to holders of record on October 1.

NEW PRESIDENT FOR THE SYRACUSE RUBBER CO.

THE directors of the Syracuse Rubber Co. (Syracuse, New York), have elected J. Henry Glismann, president, treasurer, and general manager of the company, succeeding Frank C. Howlett, whose death was reported in the last INDIA RUBBER WORLD (page 427). Mr. Glismann was with Mr. Howlett for about 25 years, and for several years latterly had been assistant treasurer of the company.

THE DERBY RUBBER CO. BUSY.

THE Derby Rubber Co., (Dedby, Connecticut), were reported recently to be very busy, their reclaiming plant being run 23 hours hours a day, Sunday only excepted. In addition to their regular manufacturing work, they have been installing extensive improvements. Some additions to the plant soon to be utilized are designed to double the output.

MR. CORSON NOT "LATE."

THROUGH an inadvertence, Mr. H. C. Corson was mentioned in the September issue of THE INDIA RUBBER WORLD, as the *late* Mr. Corson. That gentleman is not "late" in the sense that he is deceased, and, according to recent report, he is not even tardy, and is in every way his old time, prompt, vital self.

LECTURES BY THE EDITOR.

MR. HENRY C. PEARSON, Editor of THE INDIA RUBBER WORLD, on the evening of September 15, gave an illustrated lecture on "The Rubber Producing Countries of the World," before the Pascommuck Club, at Easthampton, Massachusetts.

On the evening of September 23, at Akron, Ohio, Mr. Pearson delivered an illustrated lecture on rubber as the concluding feature of a two days' conference of the officers, managers, and salesmen of the Firestone Tire and Rubber Co., following a banquet at the Portage Club, presided over by President Firestone.

PERSONAL MENTION.

MAJOR ARLINGTON U. BETTS, late governor of Albay province, is mentioned by the Manila *Times* in a review of conditions in the Philippines as "the man who developed the Albay coal fields." Albay produces more coal than all of the rest of the islands, and a single company organized in this interest is capitalized at $3,000,000. Mr. Betts, at one time a rubber manufacturer at Toledo, went to the Philippines as a private soldier in an Ohio regiment.

Mr. William F. Mayo, of William F. Mayo & Co., of the Boston rubber footwear trade, accompanied by Mrs. Mayo and their son, Mr. William H. Mayo, returned recently from a lengthy visit to Alaska.

Mr. Isaac B. Kleinert, founder and president of the I. B. Kleinert Rubber Co. (New York), on the occasion of his eightieth birthday, recently, as usual on this anniversary made a handsome cash donation to the I. B. Kleinert Employés' Benovolent Association.

Mr. Charles R. Flint, who arrived in New York from Europe during the month, is mentioned in foreign newspapers as having acquired the agency for the United States for the Laubeuf type of submarine boat, with the idea of submitting the same to the United States government in connection with its specifications recently issued. The authorities at Washington advise THE INDIA RUBBER WORLD that these specifications are of a confidential nature, intended for prospective bidders only, and cannot be made public.

Monsieur Delcourt, of the important rubber shoe importing firm of Haillot, Delcourt & Cie., of Valcienne, France, and Péruwelz, Belgium, were in America during the past month, for the purpose of meeting representatives of leading manufacturers.

A considerable use for rubber is involved in supplying tubing for spraying machines for farms and gardens, the use of which is coming to be regarded as essential in many places. Such sprayers are made by the Brandt Manufacturing Co. (Hastings, Minnesota).

NEW TENNIS SHOE LISTS.

UNDER date of September 1 the United States Rubber Co. issued a new list of tennis, yachting, and gymnasium shoes. Net prices are as follows [last year's prices are noted in parenthesis]:

VACATION BRAND. *

[Extra heavy, red rubber soles.]

	Balmorals.		Oxfords.	
Men's	$1.30	($1.25)	$1.15	($1.10)
Boys'	1.25	(1.20)	1.10	(1.05)
Youths'	1.15		1.00	
Women's	1.20		1.05	
Misses'	1.15		1.00	
Children's	1.10		.95	

YACHTING BRAND. *

[Leather insoles. Cartons.]

	Balmorals.		Oxfords.	
Men's	$1.20	($1.00)	$1.05	($0.90)
Boys'	1.10	(.95)	.95	(.85)
Youths'	1.00	(.85)	.85	(.75)
Women's	1.05	(.90)	.90	(.80)
Misses'	1.00	(.85)	.85	(.75)
Children's	.95	(.80)	.80	(.70)

NATIONAL BRAND. †

[Leather insoles. Cartons.]

[Red rubber soles. Black rubber soles 10 cents less.]

	Balmorals.		Oxfords.	
Men's	$1.10	($1.00)	$1.00	($0.90)
Boys'	1.05	(.95)	.95	(.85)
Youths'	.95	(.85)	.85	(.75)
Women's	1.00	(.90)	.90	(.80)
Misses'	.95	(.85)	.85	(.75)
Children's	.90	(.80)	.80	(.70)

CHAMPION BRAND. †

[In bulk.]

	Balmorals.		Oxfords.	
Men's	$1.72	($0.68)	$0.62	($0.58)
Boys'	.66	(.60)	.56	(.50)
Youths'	.60	(.54)	.50	(.44)
Women's	.62	(.55)	.52	(.45)
Misses'	.56	(.50)	.46	(.40)
Children's	.52	(.45)	.42	(.35)

GYMNASIUM BRAND. †

[Leather insoles. Cartons.]

	Balmorals.		Oxfords.	
Men's	$0.90	($0.85)	$0.80	($0.75)
Boys'	.80	(.75)	.70	(.65)
Youths'	.70	(.65)	.60	(.55)
Women's	.75	(.70)	65	(.60)
Misses'	.70	(.65)	.60	(.55)
Children's	.65	(.60)	.55	(.50)

BATHING SHOES. ‡

[In bulk.]

Men's	$0.47	($0.45)
Boys'	.42	(.40)
Youths'	.42	(.40)
Women's	.42	(.40)
Misses'	.42	(.40)
Children's	.37	(.35)

BASKET BALL SHOES.

[Pure gum. Extra thick suction soles.]

[Not listed in 1909.]

Men's	$3.45
Boys'	3.30

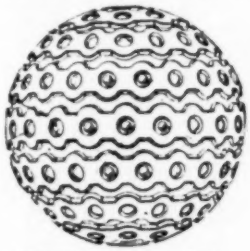
* White or brown duck.
† White, black or brown duck.
‡ White or black duck.

In addition to the tennis goods marketed under the brands of the United States Rubber Co., are brands catalogued by Goodyear's India Rubber Glove Manufacturing Co. and the Lycoming Rubber Co. (subsidiary companies), which, while under different brands, and not following closely the prices quoted in the above lists, show about the same advances over last year's prices. All prices, by the way, are subject to change without notice.

New Rubber Goods in the Market.

KEMPSHALL'S NEWEST GOLF BALL.

THE amazing activity of Mr. Eleazer Kempshall as a golf ball inventor has been referred to already in these pages. It is much to his credit that he has been able to find the money to pay for the great number of fees which have been necessary to meet the requirements for the Kempshall patents at Washington and London, not to mention the other great capitals of the earth. Not so long ago we described in these pages the "Flat Bramble" golf ball. Now is to be mentioned a



KEMPSHALL GOLF BALL.

new type of the Kempshall output. Although the inside of the new ball is similar to others of the same make, the outside is marked by a series of wavy bands, separated not by the usual little round knobs, or "bramble," but by circular recesses in which are minute "protuberances." This design is covered by the United States patent No. 922,773. [The Kempshall Rubber Manufacturing Co., Arlington, New Jersey.]

THE BRICTSON TIRE TREAD.

THE construction of this new tire tread involves an outer layer of specially tanned and very pliable chrome leather. Next to the outer chrome leather are five plies of cotton tire fabric. Inside of these is another layer of leather. Through the outer leather and the five plies of cotton are driven the steel stud and steel rivet clinched into the layer of leather which follows the tire fabric and then there is another layer of leather which

THE BRICTSON TIRE TREAD.

covers these clinched ends of rivets and studs and prevents them from coming into contact with the rubber tire. The ends of the outer layer of chrome leather are skived or sliced thin where they are placed between the rubber tire and rim. This does away with any possibility of thick ends which might crumple up, and makes possible a snug fit of the Brictson tread over the rubber tire. [The Brictson Manufacturing Co., Inc., Brookings, South Dakota.]

BI-LATERAL HOSE.

THE "bi-lateral" type of hose now being marketed is claimed to be more durable than the ordinary pattern, as the new construction obviates the tendency to crack at the two places where the jacket bends, which disposition is caused by compression. The compression of the lining is occasioned by changing from the arc of a circle that measures 2½" across to one about the size of an ordinary lead pencil, and which causes the rubber to lose its moisture and dry out much quicker at the circle point than in other parts of the lining. The compression also causes the two to crease which eventually results in a crack. The bi-lateral improvement leaves the rubber free at the two points where the bend takes place in the jacket. When the hose flattens the rubber gets from "in under," and as it is not attached to the jacket, it takes three distinct curves, which relieves it from all compression and crease. The method of stretching back rubber

BI-LATERAL HOSE.

that was condensed at two places so that the tube will be sufficiently large for the jacket consists in merely straightening out the three cruves. There is no stretching or elasticity demanded at these two points because there is no loss or compression when the hose is flattened. [The Bi-Lateral Fire Hose Co., Chicago.]

"GOOD SAMARITAN" HOT WATER BOTTLE.

THIS popular type of hot water bottle, made under the process of Mr. Frederick J. Gleason, is molded from one piece of rubber without seams or joints or cement and without the use of wire in its construction. Its hollow disk shape and thin model make it

"GOOD SAMARITAN" HOT WATER BOTTLE.

pillowlike and comfortable to lie upon. It is referred to as the only hot water bottle which fits every part of the body. The ten inch two quarts size retails for $2.50. [Walpole Rubber Co., No. 185 Summer street, Boston.]

NOVELTIES BRIEFLY MENTIONED.

A NEW line of footwear specialties in which sponge rubber is the active principle includes a hygienic cushion arch support made with a Russia calf top, a rubber sponge center, and ooze calf bottom. The company making these is turning out a somewhat unique line of soles in red, black and white rubbers of different grades. [Essex Manufacturing Co., Inc.]

A company in the west has manufactured a "metal hot water bag" that is claimed to be superior to those made of rubber. In shape this "metal bag" resembles those of rubber. It is flexible, but will not stretch. There are two covers, the outer one of soft cloth, easily removed when the whole force of the heat is de-

sired. Boiling water, it is said, can not injure the bag, nor is it breakable. Odorless and cleanly are among some of its many attributes, as well as its guarantee for five years. In short, it is claimed to be the perfection of hot water bottles.

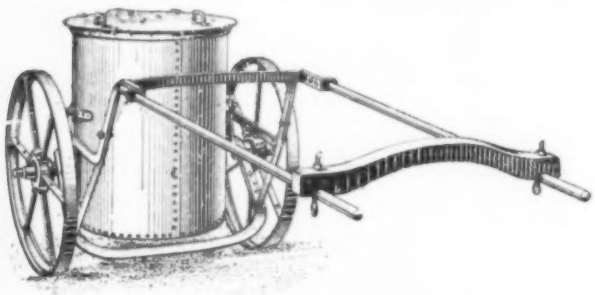
A recent addition to household aids is the "Bicycle" Clothes Wringer. Among other claims for this particular type of wringer is that it is impossible for grease or oil to get on to the rubber rolls or on the clothes. It is also claimed that it allows the use of a roll ½ inch longer, making greater wringer surface than the old style.

Heretofore the great disadvantage of the fountain pen has been the care with which it must be kept "right side up." Waterman's "Safety" pen, made for travelers, has corrected this fault, and it can be carried anywhere in any way.

One of the latest accessories for a ladies' writing desk is called "Ladies' Boudoir." It is an ornamental flat box, containing fancy circular individual boxes, filled with different sizes of rubber bands. The boxes are not only very tastefully colored but their contents has been a long felt want by the practical woman. [The B. F. Goodrich Co., Akron, Ohio.]

PLANTATION CARTS FOR CONVEYING LATEX.

AMONG the new devices which have been developed in connection with rubber plantation requirements, one which is very practical is a latex cart such as is illustrated herewith. These carts are strongly made, in various sizes to hold, for instance,



CART FOR LATEX.

30 to 100 gallons of latex each. The tanks are of galvanized iron, with airtight lids, mounted on a rack that allows the tank to swing. The tank is easily removed and another put in place. [Boulton & Paul, Limited, Norwich, England.]

THE WATERPROOF GOODS TRADE.

IT is worthy of note that the demand for waterproof goods in Asia Minor is on the increase. Smyrna, as the port of entry, perhaps consumes the most, although about 30 per cent. goes to the interior. The value of the imports at Smyrna during a good year comes to about $20,000. English goods are more in demand than American, as it is claimed that they are fairly cheap, and yet of excellent quality. The styles most called for are raglans and paletots.

Speaking of English goods, a new pattern of military coat has been approved by the army council. It is made by Samuel Brothers, London; it can be used either for foot or mounted service, and weighs less than three pounds.

The best method of waterproofing cloth is now under consideration at the United States war department. Numbers of inquiries and samples have been sent for of goods suitable for shelter tents, and the like.

The price of waterproof goods has increased within the last few months, so the buyer of a new raincoat need not be surprised if he has to pay rather more than he has done heretofore.

A new style of mackintosh for fall motoring will be much seen during the coming months. It is very full, reaching only to the knee, the rugs covering the lower part of the body. This coat is fastened by large buttons, is easy to slip on and off, and is suitable for either motoring or riding.

The mackintosh will not only be popular in short lengths, but the long coat for business will be used as well. The illustration shows one of the styles made by the Hodgman Rubber Co. (New

LONG WATERPROOF COAT FOR BUSINESS.

York). It is single breasted, fly front, with regular collar, which can be worn military fashion in bad weather.

THE FIRE HOSE TRADE.

REFERRING to an address delivered at the recent annual convention of the International Association of Fire Engineers at Syracuse, New York, by Mr. William H. Merrill, of the Underwriter Laboratories, of Chicago, it was apparently calculated and intended to deliver a blow at fire hose manufacturers generally.

The evident insinuation of the address is that there is no good fire hose made, and that the good name and repute of various brands of hose affords no warrant that hose bearing such reputable brands is any better than hose that is without reputation.

Mr. Merrill asserts: "Tests show important deficiencies in all, and clearly indicate that, almost without exception, these are of such inferior quality that they should not be accepted for use in public fire departments. The most important defect and the one most commonly present relates to the quality of the rubber linings employed. - - - Other brands having inferior grades of rubber linings were provided with strong, evenly woven fabrics. - - - The best hose is frequently sold for the lowest prices and hose of the poorest quality often sells at the highest prices. - - - They serve to show that fire departments generally are not obtaining a proper quality of fire hose. - - - I may, perhaps, be pardoned for expressing the opinion that the present general practice of purchasing hose by brand of trade name, under a short term guarantee and the failure to use and enforce adequate specifications, are chiefly responsible for the present unsatisfactory condition of fire department hose."

The foregoing statements are quoted from many similar ones that the address contains, to show that the evident intention of its author is to depreciate the value of good reputation in the hose trade and the effect of the address, if it has any, will be to seriously injure manufacturers who have very valuable reputations that have been acquired by reason of the excellent service of hose supplied to fire departments during many years.

Rubber Interests in the Far East.

DIRECT SHIPMENTS TO AMERICA.

THE suggestion made by the American consul in Ceylon that an opportunity offers for an American shipping line to that island, via the Philippines, is commented on at length in the *Ceylon Observer*, which also prints interviews with local merchants on the subject. The consul in his report made a point of the fact that a shipment of 86,000 pounds of rubber had been made from Colombo to New York on a single vessel.

The *Times of Ceylon* of August 8 reported: "663 cases of rubber were shipped by the *Parisiana* (equal to 86,000 pounds) by Messrs. C. W. Mackie & Co. on Saturday last—the largest shipment ever sent from this port. The next largest was 320 cases by the some firm ten days ago per steamship *Kansas*, also for New York."

Messrs. C. W. Mackie & Co., who are mentioned as having shipped two-thirds of the rubber which has gone from Ceylon to the United States, said that they would like to see more competition in the shipping trade. They were paying 70s. [=17.03] for 50 cubic feet, and from the end of the year it would be 75s. [=$18.24]. It was formerly 60s. [=$14.59]. Most shippers to America, they said, were confined to three or four lines, because if they shipped through any other they lost a substantial discount. There was a "shipping ring."

The *Observer* comments: "We believe that Messrs. Whittall & Co., and Messrs. Harrisons & Crosfield ship direct to their own houses in New York; so that in their case the 'American' importers would not necessarily insist on their produce going by the American line. As these firms do a very considerable amount of tea and rubber exporting, this fact has an important bearing on the question."

AMERICAN RUBBER MAN IN THE EAST.

NEWSPAPERS in the Far East noted recently the presence in that part of the world of Mr. Edgar B. Davis, second vice-president of the General Rubber Co., which is the crude rubber buying department of the United States Rubber Co. The *Times of Ceylon* mentions the presence of Mr. Davis for several months in the Malay peninsula and Sumatra, but he was not disposed to say anything regarding the intentions of his company in the matter of growing rubber in British Asia, or its ownership of rubber concessions in Brazil. Mr. Davis was leaving for New York at the time of the publication of some interviews with him. The *Times of Ceylon* says: "Mr. Davis expects to be back in the East again in November, but the countries beyond Ceylon will again engage most of his attention."

LONDON AS THE WORLD'S RUBBER MART.

IN commenting upon an interview with Mr. C. Arthur Lampard —a director in a number of rubber plantation companies in the Far East—and on correspondence elicited by the interview, the *Times of Ceylon* says: "For years Mr. Lampard has worked to help make London *the* rubber market of the world. It is not that yet by a long way; but it is going to be. When he first made this statement in New York to the president of the United States Rubber Trust, that gentleman poo-poohed the idea as being an unrealizable dream."

KEPITIGALLA SHARES WIDELY DISTRIBUTED.

AT the annual meeting of Kepitigalla Rubber Etates, Limited (London: July 27), in answer to a question relative to the frequent fluctuations in the price of the company's shares, the chairman stated that something like 50 per cent. of the total share capital (£225,000) is held outside of Great Britain—in Switzerland, France, Germany, Holland, Belgium and Ceylon, in which latter country the estates are situated. Consequently when there are large buying orders in the English market for Kepitigalla shares, there not being a large supply in England, the price rises rapidly. This statement was made in answer to the intimation that sudden changes in the market were due to inside manipulation.

TEN POUNDS OF RUBBER PER TREE.

AT the annual meeting of the Linggi Plantations, Limited (London: May 2), the chairman stated that 750 twelve-year-old trees yielded an average of 10.7 pounds of rubber; 9,000 ten-year-old trees 6½ pounds, and 4,400 five-year-old trees an average of 2.81 pounds. The average yield was 3.69 pounds per tree in a total production of 345,219 pounds. Many of the trees, however, were tapped for the first time during the year, and only during six months.

HIGH PRICED RUBBER FOR 1911.

THE details of the forward sale of rubber by the Straits Settlements (Bertram) Rubber Co., Limited, were gone into at the last annual meeting of the company (London: July 28). They have contracted to supply monthly during 1911 two tons of rubber, at 11 shillings per pound. The transaction involves 53,760 pounds of rubber, at $2.67½, gold. The contract was made through the well-known London rubber brokers, Messrs. William, James and Harry Thompson.

RUBBER PLANTING MISCELLANY.

YVES HENRY, director of agriculture for French West Africa, in a paper read recently at the International Congress of Tropical Agriculture and Colonial Development, at Brussels, on "L'*Hevea* à la Côte Occidentiale d'Afrique," declared strongly in favor of planting *Hevea* rubber in West Africa, in view of the success attending experimental efforts to date.

Mr. R. W. Harrison, of Klang, Selangor, after twenty-five years of strenuous work in planting in the Far East, during which time he contributed notably to the development of rubber cultivation, has retired and returned home to England.

A sale is reported in the *Ceylon Oberver* of a twenty acre rubber plantation for 45,000 rupees. [=$14,599.50], or about $728 per acre. Another rubber estate of 30 acres is mentioned as having been offered at £160 [=$778.64] per acre.

In the *Times of Ceylon* a correspondent notes the decay of the "rambong," or Assam rubber trees (*Ficus elastica*) at the Peradenyia gardens. These trees are now about 75 years old, and one has reached the height of 130 feet, and the diameter at base of 10 feet. They seem to have lost their vitality, and cutting them down has been begun.

Messrs. David Bridge & Co. (Castleton, Manchester, England), made an extensive and varied display of their machinery, for the rubber industry and for rubber plantations, at the Brussels Exposition which opened in April. Fortunately the rubber exhibit of which the Bridge display formed an important part was not injured by the fire reported in THE INDIA RUBBER WORLD last month (page 437.)

THE Ceylon Planters' Rubber Syndicate, Limited, have declared a second *interim* dividend for the current business year, making a total of 80 per cent. The dividend for the whole of the preceding year was 100 per cent. [See THE INDIA RUBBER WORLD, April 1, 1910—page 249], this being the first of the rubber plantation companies to be able to distribute a profit of 100 per cent. in one year.

An increasing amount of attention is being given in Ceylon to the smoking of planted *Hevea* rubber, particularly since the London trade seems to demand rubber cured in this manner. Mention was made recently of a patent on a rubber-smoking process having been applied for in Ceylon by Mr. Martin Hohl, manager of the important Ceylon firm of Freudenberg & Co.

THE EDITOR'S BOOK TABLE.

NOTICE SUR LES ARBRES A CAOUTCHOUC DE SURINAM. Amsterdam: J. H. de Bussy. 1910. [Paper. 8vo. Pp. 40. Price 50 centimes.]

THE commission of Surinam (Dutch Guiana) for the International Exhibition at Brussels this year decided to confine their attention particularly to india-rubber and allied products. Their exhibit comprised a number of specimens of rubber from native *Hevea Guyanensis* and planted *Hevea Brasiliensis*, and one of planted *Castilloa;* also a number of items relative to balata. A good collection of photographs illustrative of the balata industry and rubber culture was also shown. This brochure is the work of Dr. J. Sack, chemist at the Surinam experiment station of the colonial department of agriculture. [See THE INDIA RUBBER WORLD, October 1, 1909—page 21.] The chapter on *Hevea Guyanensis* is contributed by Mr. J. W. Gonggrijp, forestry agent in the colony, and that on *Hevea Brasiliensis* by Mr. A. W. Drost, assistant in the agricultural laboratory. There are some good photographic views, statistics of 35 rubber plantations, and general considerations regarding rubber cultural conditions in Surinam.

MALAISIE CAOUTCHOUC PLANTATIONS, SOCIETES FINANcieres. Second Edition. Antwerp: Imprimerie J. E. Buschmann. 1910. [Paper. 8vo. Pp. 195.]

The lively interest in rubber plantations on the part of Belgian capitalists is indicated by the early appearance of the second edition of this directory, the first edition of which was reviewed in THE INDIA RUBBER WORLD February 1, 1910 (page 183). The book has been increased by more than 80 pages, and a map in colors has been introduced, showing the location of the plantations reported on.

OTHER BOOKS RECEIVED.

SIXTEENTH ANNUAL REPORT OF FACTORY INSPECTION, MADE to the General Assembly [State of Rhode Island and Providence Plantations] at its January Session, 1910. J. Ellery Hudson, Chief Factory Inspector. Providence: 1910. [Cloth. 8vo. Pp. 138.]

LES NOUVEAUX CAOUTCHOUCS ET LEUR VALUE ECONOMIQUE. Maniçobas de Bahia; Guayule; Palo Amarillo; Bleekrodea; Ecanda. By O. Labroy. [Extract from *Bulletin de la Société Nationale d' Acclimatation de* France, Paris—April, 1910.] 8vo. Pp. 12.

THIRTY-SECOND ANNUAL REPORT OF THE BUREAU OF STATistics of Labor and Industries of New Jersey. For the year ending October 31, 1909. Camden: 1910. [Cloth. 8vo. Pp. XIV + 307.]

EXPERIMENTS IN TAPPING CEARA RUBBER TREES. BY E. V. Wilcox. (Hawaii Agricultural Experiment Station. Bulletin No. 19.) Honolulu: *Paradise of the Pacific* Press. 1910. [Paper. 8vo. Pp. 20.]

STATISTICAL ABSTRACT OF THE UNITED STATES. 1909. THIRty-second number. Prepared by the Bureau of Statistics, under the direction of the Secretary of Commerce and Labor. Washington: Government Printing Office. 1910. [Paper. 8vo. Pp. 793.]

THE FOREIGN COMMERCE AND NAVIGATION OF THE UNITED States for the year ending June 30, 1909. (Department of Commerce and Labor—Bureau of Statistics.) O. P. Austin, Chief of Bureau. Washington: Government Printing Office. 1909. [Paper. Fol. Pp. 1286.]

IN CURRENT PERIODICALS.

L'ARBRE a Caoutchouc du Tonkin et du Nord-Annam (*Bleekrodea Tonkinensis.* By Ph. Eberhardt and M. Durand—*L'Agriculture pratique des pays chauds,* Paris. X-82 (Jan., '10). Pp. 4-23; X-83; (Feb., '10). Pp. 112-131.

Nouvelles Observations sur la Preparation du Caoutchouc *Funtumia elastica* et sur son Avenir a la Cote D'Ivoire. By Aug. Chevalier= *L'Agriculture pratique des pays chauds,* Paris. X-84 (Mar., '10). Pp. 189-201.

El Cultivo del Caucho (*Castilloa elastica*). By José C. Pagliery, chief of the department of agriculture of Cuba. = *Circular* of Estacion Experimental Agronomica de Cuba, Santiago de Las Vegas. No. 27 (1909). Pp. 16-39.

La Saignée Rationelle de *l'Hevea.* Considerations Physiologiques. By O. Labroy. [Comparative examination of the *Hevea* and the *Castilloa* from the tapping standpoint.] = *Journal d'Agriculture Tropicale.* Paris. X-106 (Apr. 30, '10). Pp. 100-103.

La Saignée de l' *Hevea* d' Apres le Systeme Northway. By T. Petch. = *Journal d' Agriculture Tropicale,* Paris. X-109 (July 31, '10). Pp. 103-106.

Note sur un Nouveau Régime d' Exploitation du *Funtumia.* By C. Farrenc. = *Journal d' Agriculture Tropicale,* Paris. X-109 (July 31, '10). Pp. 204-207.

Nouvelles Recherches sur la Coagulation de Divers Latex à Caoutchouc. By V. Cayla. = *Journal d' Agriculture Tropicale.* Paris. X-110 (Aug. 31, '10). Pp. 228-230.

Le Caoutchouc et l'Avenir du Brésil. By G. Lamy-Torrilhon. = *Journal d Agriculture Tropicale.* Paris. X-110 (Aug. 31, '10). Pp. 235-237.

THE discovery is announced by Señor Maximo de Brunn, of San Pedro Sula, Honduras, of a vine abundant in the forests there, containing rubber in great quantities. He says: "As it would not pay to tap this vine as they do the rubber trees, I am in search of a machine, which is said to be used in Brazil and Japan, to suck or pump the milk out of this plant." Señor de Brunn invites correspondence on this subject. The location referred to is in the department of Cortez—in northwestern Honduras—just east of the department of Yoro, in which the discovery of a rubber vine of apparent value has been reported already. [See THE INDIA RUBBER WORLD, May 1, 1901—page 234.]

Review of the Crude Rubber Market.

RUBBER prices at this date are largely nominal, the recent slump having been so marked that it is difficult to obtain quotations, as most of the grades listed here are without much request at present. As intimated in an editorial article in this issue, this is the dull season in the tire trade, and the demand for rubber during the past year or two has been to a very large extent for tires. Our Akron correspondent reports the discharge of many tire workers in some of the factories, and reduced working time in other factories. The time has not yet arrived for the automobile builders to decide upon their output for the 1911 season, and until this is done the more important contracts for rubber tires will not be placed with the rubber manufacturers. Meanwhile the latter are not in the market for rubber, and doubtless the feeling prevails that by abstaining from buying for the present a lower price level for rubber may be brought about. There is gossip in the trade that there are now a few low priced contracts that will soon have to be covered, and that speculative interests are concerned in getting prices down.

There was a sharp decline at the London rubber auction on September 27, both in Pará and plantation sorts. Prices were reported which would enable Ceylons to be delivered in New York at $1.45. The Antwerp sale, on September 21, when about 200 tons out of 300 offered were sold, showed an average decline of about 1.54 francs per kilogram = 13 or 14 cepts per pound less than the official broker's estimations. At the Havre sale, on September 21, only 20 tons were sold out of 135, and the decline was still more marked than at Antwerp.

Arrivals at Pará of rubber of all kinds (including caucho) since the beginning of the new crop season, and compared with former years, have been as follows:

	1907.	1908.	1909.	1910.
July .....*tons*	1,370	1,309	1,400	2,340
August	1,500	1,890	1,870	1,870
September	2,410	2,355	2,020	*1,810
Total	5,280	5,545	5,290	6,020

*Up to September 28, 1910.

Advices from Manáos up to September 29 indicate the arrival there of 3,156 tons for the crop year, against 3,105 tons for the corresponding period last year.

The exports of plantation rubber from the Far East continue to increase at a rapid rate, as shown in detail on another page. The exports since the beginning of this year from Ceylon and the Malay peninsula have averaged about 1,200,000 pounds per month, or something like 535 long tons. Not the least interesting feature in this connection is that, because of the smaller shrinkage in the Ceylons, more than the corresponding amount of Brazilian rubber is thus replaced each month.

Following are the quotations at New York for Pará grades, one year ago, one month ago, and September 30—the current date:

PARA.	Oct. 1, '09.	Sept. 1, '10.	Sept. 30.
Islands, fine, new	201@202	179@180	155@156
Islands, fine, old	none here	none here	none here
Upriver, fine, new	213@214	196@197	165@166
Upriver, fine, old	214@215	198@199	169@170
Islands, coarse, new	78@ 79	94@ 95	90@ 91
Islands, coarse, old	82@ 83	none here	none here
Upriver, coarse, new	131@132	142@143	122@123
Upriver, coarse, old	none here	none here	none here
Cametá	96@ 97	95@ 96	90@ 91
Caucho (Peruvian), ball	118@119	135@136	119@120
Caucho (Peruvian), sheet	90@ 91	none here	none here
PLANTATION PARA.			
Fine smoked sheet	none here	190@191	159@160
Fine pale crepe	218@220	174@175	145@146
Fine sheets and biscuits	...@...	172@173	142@143
CENTRALS.			
Esmeralda, sausage	100@102	118@119	103@104
Guayaquil, strip	85@ 86	none here	none here
Nicaragua, scrap	99@100	116@117	100@101
Panama	84@ 85	none here	none here
Mexican, scrap	100@102	115@116	100@101
Mexican, slab	84@ 85	none here	66@ 67
Mangabeira, sheet	82@ 83	none here	80@ 81
Guayule	50@ 51	72@ 73	74@ 75
AFRICAN.			
Lopori, ball, prime	128@130	162@163	130@131
Lopori, strip, prime	none here	170@...	125@126
Aruwimi	114@115	160@...	122@123
Upper Congo, ball, red	125@126	158@159	120@121
Ikelemba	none here	none here	none here
Sierra Leone, 1st quality	123@127	155@156	145@146
Massai, red	126@127	166@156	145@166
Soudan niggers	112@115	none here	115@116
Cameroon ball	89@ 90	95@ 96	73@ 74
Benguela	81@ 82	none here	98@ 99
Madagascar, pinky	97@ 98	none here	none here
Accra flake	23@ 24	none here	none here
EAST INDIAN.			
Assam	none here	none here	none here
Pontianak	...@5¼	6¼@6½	5½@5¾
Borneo	52@ 53	none here	none here

Late Pará cables quote:

	Per Kilo.		Per Kilo.
Islands, fine	6$300	Upriver, fine	no sales.
Islands, coarse	3$400	Upriver, coarse	no sales.
		Exchange	17¾d.

Latest Manáos advices:

Upriver, fine	7$600	Exchange	18d.
Upriver, coarse	3$600		

New York.

IN regard to the financial situation, Albert B. Beers (broker in crude rubber and commercial paper, No. 68 William street, New York) advised as follows: "During September there has been a fair demand for commercial paper, mostly from out of town banks, with rates ruling at 5¾@6 per cent. for the best rubber names, and 6¾@6½ per cent. for those not so well known."

NEW YORK PRICES FOR AUGUST (NEW RUBBER).

	1910.	1909.	1908.
Upriver, fine	$1.87@2.20	$1.79@1.95	$0.89@.96
Upriver, coarse	1.40@1.48	1.10@1.20	.65@.69
Islands, fine	1.78@2.10	1.65@1.84	.83@.90
Islands, coarse	.94@ .98	.62@ .75	.43@.46
Cametá	.96@1.10	.80@ .92	.51@.53

African Rubbers.

NEW YORK STOCKS (IN TONS).

August 1, 1909	130	March 1, 1910	161
September 1	123	April 1	121
October 1	67	May 1	125
November 1	134	June 1	90
December 1	134	July 1	120
January 1, 1910	228	August 1	250
February 1	134	September 1	300

Rubber Scrap Prices.

LATE New York quotations—prices paid by consumers for carload lots, per pound—shown important changes, as follows:

	September 1.	October 1.
Old rubber boots and shoes—domestic	10⅜@10½	10¼@10⅜
Old rubber boots and shoes—foreign	9⅞@10	9¾@ 9⅞
Pneumatic bicycle tires	7 @ 7¼	6¾@ 7
Automobile tires	9¼@ 9½	8¾@ 9
Solid rubber wagon and carriage tires	9¾@10	9½@ 9¾
White trimmed rubber	12½@13	12 @12½
Heavy black rubber	6¼@ 6½	6¼@ 6½
Air brake hose	5⅜@ 5½	5¼@ 5⅜
Garden hose	2½@ 2⅝	2¼@ 2½
Fire and large hose	3 @ 3¼	2⅞@ 3
Matting	1¼@ 1½	1⅛@ 1¼

Statistics of Para Rubber (Excluding Caucho).

	NEW YORK. Fine and Medium.	Coarse		Total 1910.	Total 1909.	Total 1908.
Stocks, July 31.....*tons*	196	13	=	209	230	286
Arrivals, August	379	323	=	702	500	816
Aggregating	575	336	=	911	730	1102
Deliveries, August	429	311	=	740	574	973
Stocks, August 31	146	25	=	171	156	129

	PARA. 1910.	1909.	1908.	ENGLAND. 1910.	1909.	1908.
Stocks, July 31 .....*tons*	485	550	250	1140	245	200
Arrivals, August	1460	1610	1490	348	510	1150
Aggregating	1945	2160	1740	1488	755	1350
Deliveries, August	1360	1250	1435	213	460	975
Stocks, August 31	585	910	305	1275	295	375

	1910.	1909.	1908.
World's visible supply, August 31	2,473	1,981	1,655
Pará receipts, July 1 to August 31	2,960	2,700	2,570
Pará receipts of caucho, same dates	1,210	580	600
Afloat from Pará to United States, August 31	229	none	438
Afloat from Pará to Europe, August 31	215	620	417

Liverpool.

WILLIAM WRIGHT & Co. report [September 1]:

Fine Pará.—The market during the month has been subject to speculative manipulation. The price declined from 9*s.* 2¼*d.* to 7*s.* 9*d.*, then reacted to 9*s.* 8*d.* [= $2.35], and has since declined to 7*s.* 11*d.*, which was closing value. Of course all these speculative attempts simply frightened the trade, who are not likely to buy in any quantity until steadier conditions prevail. The sooner we arrive at such a state the better. America has on the whole been quiet, and takes little interest in near rubber, though there seems to be more demand for the later months of the year.

IMPORTS FROM PARA AT NEW YORK.

[*The Figures Indicate Weight in Pounds.*]

SEPTEMBER 1.—By the steamer *Sao Paulo*, from Pará:

IMPORTERS.	Fine.	Medium.	Coarse.	Caucho.	Total
Poel & Arnold	74,800	11,400	54,500	36,300	177,000
A. T. Morse & Co.	74,400	.....	51,500	.....	125,900
Henderson & Korn	38,900	3,600	55,400	.....	97,900
Hagemeyer & Brunn	28,200	4,500	22,000	5,700	60,400
William E. Peck & Co.	1,800	.....	4,600	.....	6,400
Total	218,100	19,500	188,000	42,000	467,600

SEPTEMBER 6.—By the steamer *Justin*, from Manáos and Pará:

Poel & Arnold	18,600	37,700	24,300	38,400	119,000
A. T. Morse & Co.	22,900	6,700	12,000	9,300	50,900
New York Commercial Co.	15,700	1,200	26,700	.....	43,600
Total	57,200	45,600	63,000	47,700	213,500

SEPTEMBER 15.—By the steamer *Polycarp*, from Manáos and Pará:

A. T. Morse & Co.	166,300	15,600	95,900	2,400	280,200
Poel & Arnold	17,900	12,900	65,000	36,500	132,300
Henderson & Korn	23,200	.....	12,500	.....	35,700
New York Commercial Co.	7,200	700	15,700	.....	23,700
Hagemeyer & Brunn	5,000	700	3,300	.....	9,000
William E. Peck & Co.	1,700	.....	3,300	.....	5,000
Total	221,300	29,900	195,800	38,900	485,900

SEPTEMBER 20.—By the steamer *Javary*, from Iquitos:

G. Amsinck & Co.	39,300	.....	7,700	5,000 =	52,000
Thomsen & Co.	6,600	.....	3,000	26,400 =	36,000
H. A. Astlett Co.	5,300	.....	2,400	3,200 =	11,900
A. A. Morse & Co.	.....	.....	.....	11,000 =	11,000
Total	51,200	.....	13,100	45,600 =	110,900

SEPTEMBER 26.—By the steamer *Cearense*, from Manáos and Pará:

A. T. Morse & Co.	197,700	3,900	55,200	49,100=151,800
Poel & Arnold	112,000	29,000	46,700	2,200=190,800
New York Commercial Co.	43,600	8,200	49,800	54,600=310,300
Henderson & Korn	53,500	.....	22,400	.....= 75,900
Lawrence Johnson & Co.	.....	.....	31,000	.....= 31,000
Hagemeyer & Brunn	8,600	700	2,000	.....= 11,300
William E. Peck & Co.	1,100	.....	3,900	.....= 5,000
Total	417,400	41,800	211,000	105,900=776,100

PARA RUBBER VIA EUROPE.

		POUNDS.
AUG. 26.—By the *Pennsylvania*=Hamburg:		
New York Commercial Co. (Fine)		9,000
AUG. 29.—By the *Baltic*=Liverpool:		
A. T. Morse & Co. (Caucho)	22,500	
Raw Products Co. (Coarse)	22,500	45,000
AUG. 31.—By the *Caronia*=Liverpool:		
N. Y. Commercial Co. (Coarse)	30,000	
Raw Products Co. (Coarse)	20,000	50,000
AUG. 31. By the *Magdalena*=Mollendo:		
N. Y. Commercial Co. (Fine)	7,000	
General Rubber Co. (Fine)	3,000	10,000
SEPT. 7.—By the *Celtic*=Liverpool:		
Poel & Arnold (Caucho)		25,000
SEPT. 8.—By the *President Lincoln*=Hamburg:		
New York Commercial Co. (Fine)		5,000
SEPT. 10.—By the *Campania*=Liverpool:		
C. P. dos Santos (Fine)		11,000
SEPT. 12.—By the *Cedric*=Liverpool:		
Poel & Arnold (Coarse)	95,000	
W. H. Stiles & Co. (Coarse)	11,000	
A. T. Morse & Co. (Coarse)	40,000	
Poel & Arnold (Caucho)	65,000	211,000
SEPT. 14.—By the *Carmania*=Liverpool:		
Livesey & Co. (Coarse)		6,500
SEPT. 15.—By the *President Grant*=Hamburg:		
N. Y. Commercial Co. (Coarse)	15,000	
N. Y. Commercial Co. (Caucho)	22,500	37,500
SEPT. 19.—By the *Arabic*=Liverpool:		
Poel & Arnold (Coarse)	45,000	
N. Y. Commercial Co. (Coarse)	18,000	
Poel & Arnold (Caucho)	17,500	
N. Y. Commercial Co. (Fine)	5,500	86,000

OTHER NEW YORK ARRIVALS.

CENTRALS.

[*This sign, in connection with imports of Centrals, denotes Guayule rubber.]

		POUNDS.
AUG. 25.—By the *Origen*=Honduras:		
Eggers & Heinlein	2,000	
George A. Alden & Co.	1,500	
A. Rosenthal & Sons	1,000	4,500
AUG. 26.—By the *Pennsylvania*=Hamburg:		
N. Y. Commercial Co.		*65,000
Aug. 29.—By the *Matanzas*=Tampico:		
N. Y. Commercial Co.	*190,000	
Ed. Maurer	*140,000	
Poel & Arnold	*20,000	*350,000
AUG. 29.—By the *Prinz Eitel Friedrich*=Colombia:		
Maitland, Coppell & Co.	4,500	
A. Held	3,500	8,000
AUG. 29.—By the *Panama*=Colon:		
Herbst Brothers	11,300	
N. Y. Commercial Co.	5,000	
G. Amsinck & Co.	4,000	
L. Johnson & Co.	3,000	
American Trading Co.	2,000	
J. Sambrada & Co.	1,500	
R. G. Barthold	1,000	28,000
AUG. 29.—By the *Indianca*=Bahia:		
J. H. Rossbach & Bros.	5,500	
A. D. Hitch & Co.	2,000	7,500
AUG. 30.—By *El Dia*=Galveston:		
Continental-Mexican Rubber Co.	*75,000	
E. S. Churchill	*9,000	*84,000
AUG. 30.—By the *Sarnia*=Colon:		
Isaac Brandon & Bros.	10,500	
Suzarte & Whitney	2,500	
R. Del Gallego & Co.	1,500	14,500
AUG. 31.—By *El Cid*=Galveston:		
Continental-Mexican Rubber Co.	*152,500	
C. T. Wilson & Co.	*30,000	*182,500
SEPT. 2.—By the *Scottish Prince*=Bahia:		
J. H. Rossbach & Bros.	30,000	
A. D. Hitch & Co.	5,000	35,000
SEPT. 2.—By the *Lusitania*=Liverpool:		
Livesey & Co.		11,500
SEPT. 2.—By the *Merida*=Frontera:		
Harburger & Stack	3,500	
E. N. Tibbals & Co.	2,500	
E. Steiger & Co.	1,500	
Chilean Export Co.	1,500	
International Products Co.	1,000	
H. Marquardt & Co.	1,000	11,000
SEPT. 6.—By the *Vigilancia*=Tampico:		
Ed. Maurer	*100,000	
New York Commercial Co.	*33,500	
Poel & Arnold	*22,500	
For Hamburg	*50,000	*206,000
SEPT. 6.—By the *Alliance*=Colon:		
G. Amsinck & Co.	4,000	
Wessels, Kulenkampff & Co.	2,000	
Schulte, Bauman Co.	2,000	
Dumarest Brothers & Co.	2,000	
Isaac Brandon & Bros.	2,000	
R. del Castillo & Co.	1,000	
Mecke & Co.	1,000	
Roldan & Van Sickle	1,000	15,000
SEPT. 6.—By the *Voltaire*=Bahia:		
A. Hirsch & Co.	20,000	
J. H. Rossbach Bros. & Co.	8,000	28,000
SEPT. 6.—By *El Rio*=Galveston:		
Continental-Mexican Rubber Co.	*150,000	
E. S. Churchill	*9,000	*159,000
SEPT. 6.—By the *Celtic*=Liverpool:		
Poel & Arnold		11,000
SEPT. 6.—By the *Joachem*=Colon:		
J. J. Julia & Co.	3,500	
Mecke & Co.	2,500	
G. Amsinck & Co.	2,000	
Pablo, Calvet & Co.	2,000	
New York Commercial Co.	1,000	
Fruit Dispatch Co.	1,000	12,000
SEPT. 7.—By the *Momus*=New Orleans:		
A. T. Morse & Co.	3,000	
A. N. Rotholz	2,000	
G. Amsinck & Co.	2,500	
Manhattan Rubber Mfg. Co.	2,000	
Eggers & Heinlein	2,500	12,000
SEPT. 9.—By the *Esperanza*=Mexico:		
E. N. Tibbals & Co.	4,500	
H. Marquardt & Co.	2,500	
Harburger & Stack	2,000	
Ottoza & Malloya	2,000	
E. Steiger & Co.	1,500	12,500
SEPT. 10.—By the *Campania*=Liverpool:		
C. P. dos Santos		5,500
SEPT. 12.—By the *Bayamo*=Tampico:		
New York Commercial Co.	*67,000	
Ed. Maurer	*100,000	
Poel & Arnold	*40,000	
Diamond Rubber Co.	*45,000	
For Hamburg	*7,000	*259,000
SEPT. 12.—By the *Colon*=Colon:		
G. Amsinck & Co.	12,000	
Herbst Brothers	10,000	
New York Commercial Co.	6,500	
Isaac Brandon & Bros.	6,000	
L. Johnson & Co.	5,000	
J. Sambrada & Co.	2,000	
Demarest Bros. & Co.	1,500	43,000
SEPT. 12.—By the *Kroonland*=Antwerp:		
Ed. Maurer	*55,000	
Poel & Arnold	*22,500	*77,500
SEPT. 13.—By the *Albingia*=Colombia:		
L. Hagenaers Co.	3,000	
R. del Gallego & Co.	3,000	
H. W. Peabody & Co.	2,500	
J. H. Rossbach & Bros.	1,500	10,000
SEPT. 13.—By the *El Sol*=Galveston:		
Continental-Mexican Rubber Co.	*150,000	
E. S. Churchill	*9,000	*159,000
SEPT. 13.—By the *Clyde*=Colon:		
A. M. Capen's Sons	4,500	
L. Hagenaers & Co.	4,500	
Kunhardt & Co.	2,500	
Isaac Brandor & Bros.	2,000	
R. del Castillo & Co.	1,500	
Heilbron, Wolff & Co.	1,500	
G. Amsinck & Co.	1,500	
Delima, Cortissoz & Co.	1,000	
Pablo, Calve & Co.	1,000	
Wessels, Kulenkampff & Co.	1,000	21,000
SEPT. 13.—By the *Comus*=New Orleans:		
Eggers & Heinlein	2,000	
New York Commercial Co.	2,000	4,000
SEPT. 16.—By the *El Paso*=Galveston:		
Continental-Mexican Rubber Co.	*225,000	
E. S. Churchill	*17,000	
C. T. Wilson & Co.	*10,000	*252,000
SEPT. 16.—By the *Mexico*=Vera Cruz:		
E. N. Tibbals & Co.	3,000	
H. Marquardt & Co.	1,500	
J. A. Kendall Co.	1,000	5,500
SEPT. 16.—By the *Polycarp*=Ceara:		
J. H. Rossbach & Bros.	15,000	
Herbst Brothers	4,500	19,500
SEPT. 19.—By the *Seguranca*=Tampico:		
New York Commercial Co.	*100,000	
Poel & Arnold	*30,000	
Ed. Maurer	*20,000	
J. W. Wilson & Co.	*20,000	*170,000
SEPT. 19.—By the *Advance*=Colon:		
G. Amsinck & Co.	12,000	
Herbst Brothers	8,000	
Isaac Brandon & Bros.	5,000	
National Sewing Machine Co.	3,000	
L. Johnson & Co.	3,000	
J. Sambrada & Co.	2,500	
A. Rosenthal & Sons	1,000	34,500
SEPT. 20.—By the *Tennyson*=Bahia:		
J. H. Rossbach & Bros.	29,000	
A. D. Hatch & Co.	2,000	31,000
SEPT. 21.—By the *Prinz August Wilhelm*=Colon:		
Graham, Hinkley & Co.	1,500	
Caballero & Blanco	1,500	
A. Held	1,500	
Andean Trading Co.	1,000	
Pablo, Calvet & Co.	1,000	
Isaac Brandon & Bros.	1,000	7,500
SEPT. 21.—By the *Proteus*=New Orleans:		
A. T. Morse & Co.	5,000	
Manhattan Rubber Mfg. Co.	4,500	
Robinson & Co.	3,500	13,000
SEPT. 22.—By the *Panama*=Colon:		
Piza, Nephews & Co.	6,000	
G. Amsinck & Co.	3,000	
H. Mann & Co.	1,000	10,000

AFRICAN.

		POUNDS.
AUG. 25.—By the *Teutonic*=London:		
A. T. Morse & Co.	35,000	
George A. Alden & Co.	7,000	42,000
AUG. 26.—By the *Pennsylvania*=Hamburg:		
A. T. Morse & Co.	130,000	
George A. Alden & Co.	40,000	
Poel & Arnold	27,000	
W. L. Gough Co.	22,500	219,500
AUG. 27.—By the *Kais'n Aug. Victoria*=Hamburg:		
George A. Alden & Co.	40,000	
A. T. Morse & Co.	25,000	
Poel & Arnold	11,500	76,500
AUG. 29.—By the *Baltic*=Liverpool:		
Poel & Arnold	25,000	
W. L. Gough Co.	15,000	
George A. Alden & Co.	17,000	
Rubber Trading Co.	9,000	
Raw Products Co.	10,000	
Livesey & Co.	11,500	87,500
AUG. 29.—By the *Soperga*=Lisbon:		
Poel & Arnold		44,500
AUG. 29.—By the *Minnewaska*=London:		
Robinson & Co.		11,000
AUG. 29.—By the *Potomac*=Lisbon:		
General Rubber Co.		56,000
AUG. 31.—By the *Bluecher*=Hamburg:		
W. L. Gough Co.	11,500	
Rubber Trading Co.	9,000	
A. T. Morse & Co.	4,500	
Robert Badenhop	3,500	
Raw Products Co.	2,000	30,500
AUG. 31.—By the *Oceanic*=London:		
Poel & Arnold		35,000
SEPT. 6.—By the *Cleveland*=Hamburg:		
A. T. Morse & Co.	30,000	
George A. Alden & Co.	17,000	
Poel & Arnold	36,000	
Raw Products Co.	13,500	96,500

SEPT. 6.—By the *Lapland*=Antwerp:

A. T. Morse & Co.	90,000	
Rubber Trading	11,000	
Raw Products Co.	7,000	108,000

SEPT. 6.—By the *Celtic*=Liverpool:

Poel & Arnold	38,000	
George A. Alden & Co.	70,000	
A. T. Morse & Co.	15,000	123,000

SEPT. 8.—By the *Pres. Lincoln*=*Hamburg*:

George A. Alden & Co.	10,000	
A. T. Morse & Co.	9,000	
Poel & Arnold	10,000	
W. L. Gough Co.	11,500	
Robert Badenhop	2,000	42,500

SEPT. 8.—By the *Niagara*=Havre:

Raw Products Co.		15,000

SEPT. 8.—By the *Majestic*=London:

Poel & Arnold		11,500

SEPT. 10.—By the *St. Paul*=London:

George A. Alden & Co.		13,500

SEPT. 12.—By the *Cedric*=Liverpool:

George A. Alden & Co.	20,000	
Rubber Trading Co.	3,500	23,500

SEPT. 12.—By the *La Gascogne*=Havre:

A. T. Morse & Co.		25,000

SEPT. 12.—By the *Kroonland*=Antwerp:

Poel & Arnold	20,000	
Livesey & Co.	30,000	
Rubber Trading Co.	18,000	
George A. Alden & Co.	18,000	
W. L. Gough Co.	11,000	
Robert Badenhop	2,400	121,000

SEPT. 13.—By the *Ciampano*=Lisbon:

General Rubber Co.	56,000	
A. T. Morse & Co.	9,000	65,000

SEPT. 19.—By the *Arabic*=Liverpool:

Poel & Arnold	45,000	
George A. Alden & Co.	15,500	60,500

SEPT. 19.—By the *Cincinnati*=Hamburg:

George A. Alden & Co.	42,000	
A. T. Morse & Co.	25,000	
W. L. Gough Co.	13,500	
Poel & Arnold	6,500	
Raw Products Co.	6,000	
Robert Badenhop	4,500	97,500

SEPT. 20.—By the *Mesaba*=London:

Robinson & Co.		4,500

SEPT. 22.—By the *Graf Waldersee*=Hamburg:

A. T. Morse & Co.	7,000	
W. L. Gough Co.	7,000	14,000

SEPT. 22.—By the *Ingleñugen*=Lisbon:

General Rubber Co.		56,000

EAST INDIAN.

[*Denotes plantation rubber.]

AUG. 25.—By the *Teutonic*=London:

	POUNDS.	
A. T. Morse & Co.	*18,000	
New York Commercial Co.	*16,000	
Poel & Arnold	*10,000	*44,000

AUG. 27.—By the *Indramayo*=Singapore:

Poel & Arnold	20,000	
Heabler & Co.	18,000	
Otto Isenstein & Co.	9,000	
W. L. Gough Co.	7,000	
New York Commercial Co.	*9,000	
State Rubber Co.	*3,000	66,000

AUG. 27.—By the *St. Louis*=London:

New York Commercial Co.	*9,000	
Poel & Arnold	*8,0000	*17,000

AUG. 29.—By the *Kasama*=Colombo:

New York Commercial Co.	*63,000	
A. T. Morse & Co.	*40,000	*103,000

AUG. 29.—By the *Minnewaska*=London:

A. T. Morse & Co.	*33,500	
Raw Products Co.	*3,500	*37,000

AUG. 31.—By the *Oceanic*=London:

Poel & Arnold	*15,000	
A. T. Morse & Co.	*13,500	
New York Commercial Co.	*7,000	*35,500

SEPT. 3.—By the *New York*=London:

New York Commercial Co.	*50,000	
Poel & Arnold	*4,500	*54,500

SEPT. 6.—By the *Inverclyde*=Singapore:

Poel & Arnold	33,500	
Ed. Maurer	11,000	
New York Commercial Co.	*6,000	50,500

SEPT. 6.—By the *Minneapolis*=London:

General Rubber Co.	*9,000	
Rubber Import Co.	*11,000	
Robinson & Co.	10,000	30,000

SEPT. 8.—By the *Majestic*=London:

Poel & Arnold	*57,000	
New York Commercial Co.	*40,000	
W. H. Stiles	*5,000	*102,000

SEPT. 10.—By the *St. Paul*=London:

New York Commercial Co.		*12,000

SEPT. 12.—By the *Indrasamha*=Singapore:

George A. Alden & Co.	15,000	
W. L. Gough Co.	22,000	
State Rubber Co.	*3,500	40,500

SEPT. 12.—By the *Kroonland*=Antwerp:

Poel & Arnold	*28,000	
Robert Badenhop	*13,500	
Rubber Trading Co.	*5,000	*46,500

SEPT. 13.—By the *Minnetonka*=London:

A. T. Morse & Co.	*80,000	
Ed. Maurer	*9,000	*89,000

SEPT. 15.—By the *Adriatic*=London:

Poel & Arnold	*22,500	
New York Commercial Co.	*15,000	*37,500

SEPT. 16.—By the *Philadelphia*=London:

Poel & Arnold	*22,500	
Robinson & Co.	11,500	34,000

SEPT. 16.—By the *Indradeo*=Singapore:

W. L. Gough & Co.	15,000	
Ed. Maurer	9,000	
George A. Alden & Co.	11,500	
Poel & Arnold	11,000	
Malaysian Rubber Co.	6,500	
State Rubber Co.	*4,500	57,500

SEPT. 19.—By the *Finland*=Antwerp:

A. T. Morse & Co.	*25,000	
Robert Badenhop	6,500	31,500

SEPT. 20.—By the *Mesaba*=London:

A. T. Morse & Co.	*45,000	
General Rubber Co.	*5,500	
Robinson & Co.	11,500	62,000

SEPT. 29.—By the *Teutonic*=London:

New York Commercial Co.	*13,500	
A. T. Morse & Co.	*9,000	*22,500

SEPT. 22.—By the *Parisiana*=Colombo:

New York Commercial Co.	*90,000	
A. T. Morse & Co.	*30,000	*120,000

GUTTA-JELUTONG.

AUG. 27.—By the *Indramayo*=Singapore:

Heabler & Co.	275,000	
W. L. Gough Co.	200,000	
Winter & Smillie	100,000	
L. Littlejohn & Co.	100,000	
George A. Alden & Co.	275,000	950,000

SEPT. 6.—By the *Inverclyde*=Singapore:

Heabler & Co.		50,000

SEPT. 12.—By the *Indrasamha*=Singapore:

Heabler & Co.	225,000	
W. L. Gough Co.	125,000	
Poel & Arnold	100,000	
George A. Alden & Co.	55,000	
L. Littlejohn & Co.	150,000	655,000

SEPT. 16.—By the *Indradeo*=Singapore:

L. Littlejohn & Co.	650,000	
Heabler & Co.	700,000	
W. L. Gough Co.	350,000	
Poel & Arnold	225,000	
George A. Alden & Co.	100,000	2,025,000

GUTTA-PERCHA.

AUG. 27.—By the *Indramayo*=Singapore:

	POUNDS.	
Heabler & Co.	50,000	
Otto Isenstein & Co.	3,000	53,000

SEPT. 6.—By the *Inverclyde*=Singapore:

Robert Soltau & Co.		27,000

SEPT. 15.—By the *Pres. Grant*=Hamburg:

Robert Soltau & Co.		15,000

SEPT. 16.—By the *Indradeo*=Singapore:

L. Littlejohn & Co.		45,000

BALATA.

AUG. 29.—By the *Minnewaska*=London:

Earle Brothers		6,500

AUG. 30.—By the *Saramaca*=Demerara:

Ed. Maurer	15,000	
J. A. Pauli & Co.	3,000	
Middleton & Co.	2,500	
B. Williamson Co.	2,500	23,000

SEPT. 6.—By the *Suriname*=Demerara:

G. Amsinck & Co.	5,500	
Ed. Maurer	4,500	
Middleton & Co.	2,500	
Frame & Co.	1,000	13,500

SEPT. 9.—By the *Korona*=Demerara:

George A. Alden & Co.	5,500	
Suzarte & Whitney	2,500	8,000

SEPT. 13.—By the *Marowijne*=Demerara:

Ed. Maurer	15,000	
J. A. Pauli & Co.	3,500	
In transit	4,500	23,000

SEPT. 20.—By the *Coppename*=Demerara:

Ed. Maurer	4,500	
J. A. Pauli & Co.	2,500	
Iglesias Lobo & Co.	2,000	7,000

CUSTOM HOUSE STATISTICS.

PORT OF NEW YORK—AUGUST.

Imports.	Pounds.	Value.
India-rubber	5,292,354	$6,906,742
Balata	72,309	49,551
Gutta-percha	61,496	10,383
Gutta-jelutong (Pontianak)	4,210,186	269,846
Guayule	900,226	421,321
Total	10,536,571	$7,657,843
Exports:		
India-rubber	305,891	$484,566
Balata	13,208	13,579
Gutta-percha	.....	.....
Guayule	32,650	21,964
Reclaimed rubber	74,100	9,502
Rubber scrap, imported	3,185,524	$296,277
Rubber scrap, exported	231,540	37,683

BOSTON ARRIVALS.

AUG. 5.—By the *Schuylkill*=Singapore:

State Rubber Co. (Jelutong)	555,000	
W. L. Gough Co. (Jelutong)	125,000	
L. Littlejohn & Co. (Jelutong)	130,000	
Heabler & Co. (Jelutong)	110,000	920,000

AUG. 15.—By the *Atholl*=Singapore:

State Rubber Co. (Jelutong)	550,000	
L. Littlejohn & Co. (Jelutong)	115,000	665,000

AUG. 22.—By the *Indramayo*=Singapore:

State Rubber Co. (Jelutong)	225,000	
Heabler & Co. (Jelutong)	125,000	
W. L. Gough (Gutta-percha)	33,000	383,000

PARA EXPORTS OF INDIA-RUBBER, JULY, 1910 (In KILOGRAMS).

	NEW YORK.					EUROPE.					TOTAL.
EXPORTERS.	Fine.	Medium.	Coarse.	Caucho.	TOTAL.	Fine.	Medium.	Coarse.	Caucho.	TOTAL.	
Gruner & Co.	46,410	7,140	103,645	57,420	214,615	50,626	5,484	20,584	26,170	102,864	317,479
Adelbert H. Alden, Ltd.	39,610	3,740	31,020	5,940	80,310	47,090	9,520	47,520	22,770	126,900	207,210
E. Pinto Alves & Co.	35,020	....	59,730	.....	94,750	25,500	....	.....	.....	25,500	120,250
R. Suarez & Co.	.....	....	.....	.....	.....	35,633	....	10,333	30,188	76,154	76,154
J. Marques	14,806	2,285	6,162	1,138	24,391	12,580	2,210	10,890	.....	25,680	50,071
R. O. Ahlers & Co.	1,419	....	1,084	943	3,446	17,608	....	2,926	269	20,803	24,249
Scholz, Hartje & Co.	6,460	340	660	.....	7,460	2,890	170	1,320	6,930	11,310	18,770
Sundries	3,740	1,020	11,620	.....	16,380	5,100	1,190	2,970	.....	9,260	25,640
Itacoatiara direct	.....	....	.....	.....	.....	942	442	789	.....	2,173	2,173
Manáos direct	73,946	15,695	54,165	99,029	242,835	282,228	35,573	67,238	293,920	678,959	921,794
Iquitos direct	308	....	421	16,725	17,454	.....	....	.....	.....	.....	17,454
Total, July, 1910	221,719	30,220	268,507	181,195	701,641	480,197	54,589	164,570	380,247	1,079,603	1,781,244
Total, July, 1909	287,210	45,219	311,963	11,323	655,715	211,575	41,931	168,190	274,160	695,856	1,351,571

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[COURTESY OF MESSRS. SCHOLZ & CO.]

FROM—	1910.	1909.	1908.	1907.	1906.	1905.
Rio Purús-Acre ...tons	200	368	206	234	421	225
Rio Madeira	281	295	292	180	266	219
Rio Juruá	34	18	52	31	26	37
Rio Javary-Iquitos	7	39	8	7	23	90
Rio Solimões	22	4	11	16	15	11
Rio Negro	...	2	...	...	...	4
Total	634	726	569	468	751	586
Caucho	100	314	143	101	143	88
Total	734	1,040	712	569	894	674
For Shipment from—						
Manáos	610	883	539	547	695	608
Pará	124	157	173	22	199	66
Total	734	1,040	712	569	894	674

Plantation Rubber from the Far East.

EXPORTS OF CEYLON GROWN RUBBER.

[From January 1 to August 15, 1909 and 1910, compiled by the Ceylon Chamber of Commerce.]

	Pounds 1909.	Pounds. 1910.
To Great Britain	409,569	753,968
To Canada	230,518	673,922
To United States		1,911
To Belgium	25,252	26,425
To Germany	17,349	9,980
To Italy	608	841
To Australia	7,504	1,099
To France	1,630	.....
To China	1,508	.....
Total	693,947	1,468,146

[Same period 1908—405,415 pounds; same 1907—267,979.]

EXPORTS FROM THE FEDERATED MALAY STATES.

[For the first six months of 1910. Reported by the Commissioner of Trade and Customs.]

	Pounds.
Perak	975,990
Selangor	3,140,639
Negri Sembilan	1,158,954
Pahang	1,210
Total	5,276,793
Total, 6 months, 1909	2,463,241

TOTAL EXPORTS FROM MALAYA.

[From January 1 to dates named. Reported by BARLOW & Co., Singapore. Ceylon exports not included.]

	1908.	1909.	1910.
From Singapore (to August 10)	1,210,996	1,584,234	1,912,555
From Penang (to July 25)	600,300	1,514,013	1,202,525
From Pt. Swettenham (to July 22)	.....	.....	4,405,022
Total	1,811,296	3,098,247	7,520,102

Antwerp.

RUBBER ARRIVALS FROM THE CONGO.

AUGUST 16.—By the steamer *Mandingo*:

Bunge & Co.	(Société Générale Africaine) *kilos*	96,000	
Do	(Chemins de fer Grands Lacs)	2,500	
Do	(Comptoir Commercial Congolais)	19,300	
Do	(Comité Special Katanga)	3,500	
Société Coloniale Anversoise	(Cie. Française du Haut Congo)	10,000	
Do	(Süd Cameroon)	8,100	
Do	(Cie. du Kasai)	80,400	
L. & W. Van de Velde		3,000	222,800

AUGUST 31.—By the steamer *Bruxellesville*:

Bunge & Co.	(Société Générale Africaine) *kilos*	67,800	
Do	(Chemins de fer Grands Lacs)	7,200	
Do	(Comité Special Katanga)	20,000	
Do	(Comptoir Commercial Congolais)	20,800	
Société Coloniale Anversoise	(Belge du Haut Congo)	5,000	
Do	(Cie. du Lomami)	9,800	
L. & W. Van de Velde	(Cie. du Kasai)	57,000	
Do		1,200	
Charles Dethier	(American Congo Co.)	900	175,600

RUBBER STATISTICS FOR AUGUST.

DETAILS.	1910.	1909.	1908.	1907.	1906.
Stocks, July 31 ....*kilos*	519,965	524,512	695,551	931,356	531,441
Arrivals in August	423,246	229,260	640,712	309,667	578,122
Congo sorts	338,797	147,313	522,847	232,522	438,005
Other sorts	84,449	81,947	117,865	77,145	140,117
Aggregating	943,211	753,772	1,336,263	1,241,023	1,109,563
Sales in August	406,651	508,921	461,749	500,509	422,696
Stocks, August 31	536,560	244,851	874,514	740,514	686,867
Arrivals since Jan. 1	2,758,353	3,162,684	3,473,730	3,501,465	3,933,727
Congo sorts	2,139,120	2,325,028	2,953,211	2,986,244	2,998,843
Other sorts	619,233	837,656	520,528	515,221	934,884
Sales since Jan. 1	2,763,303	3,513,568	3,606,119	3,419,135	3,982,047